

# The Mining Journal

## RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1744.—VOL. XXXIX.

LONDON, SATURDAY, JANUARY 23, 1869.

(WITH SUPPLEMENT) {STAMPED...SIXPENCE, UNSTAMPED...FIVEPENCE

**JAMES CROFTS, STOCK AND SHAREBROKER,**  
No. 1, FINCH LANE, CORNHILL.  
(Established 1842.)

HOLDERS of mining shares difficult of sale in the open market may find purchase for the same through Mr. Crofts' agency. Also parties requiring advice as to the disposal or abandonment of doubtful mining stocks may obtain the benefit of Mr. Crofts' long experience on the market in all cases of public or difficulty, legal or otherwise.

FOR SALE, a few shares in a TIN MINE, to pay upwards of 80 per cent., at 6d. per share.

**MR. JOHN BUMPUS, 44, THREADNEEDLE STREET,**  
has FOR SALE the following shares, free of commission:—  
Anglo-Brazil, 12s. 3d. 50 East Carn Brea, 8s. 60 Port Phillip (Gold), 39s. 6d.  
Brynpostig, 28s. 9d. 15 Frank Mills, 39s. 6d.  
Bryn Gwlog, 5s. 100 Frontino, 8s. 6d. 50 Pestarena, 27s. 6d.  
Carn Camborne, 11s 6 50 Gen. Brazilian, 9s 6d 25 Royalton, 28s. 6d.  
Chiverton, £23%. 15 Great Wh. Vor, £11½ 50 Rossa Grande, 26s 6d  
Caradon Con., £35%. 10 Great Laxey, £19½ 25 So. Darren, 33s. 9d.  
Don Pedro, £3 8s. 9d. 2 Herodsfoot, £45½ 100 Taquaril, 13s. 6d.  
(premium.) 5 Linares, 20 W. Prince of Wales, 6s  
Drake Walls, 19s. 10 Marke Valley, £9½ 50 West Godolphin, 20s.  
East Caradon, £9½ 35 No. Treskerby, 24s. 3d 50 Wh. Grenville, 34s 6d  
E. Grenville, £3 11 3d 20 No. W. Crofty, 27s 9d 50 Wheel Uny, £4½  
East Lovell, £9½. 50 Prince of Wales, 23s 9 50 Wheel Crebor, 7s.  
100 Princess Wales, 3s 9d

**MR. WILLIAM WARD,**  
STOCK AND SHAREDEALER,  
No. 29, THREADNEEDLE STREET, LONDON, E.C.

**MESSERS. WILSON, WARD, AND CO.,**  
STOCK AND SHAREDEALERS,  
16, UNION COURT, OLD BROAD STREET, LONDON, E.C.

**MR. THOMAS SPARGO, STOCK AND SHAREDEALER,**  
224 & 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

**JOHN RISLEY, (SWORN) STOCK AND SHAREBROKER,**  
48, THREADNEEDLE STREET, LONDON, E.C.  
Bankers: London and Westminster, Lothbury.

OFFICE OF THE  
**WHEAL MARY FLORENCE MINING COMPANY (LIMITED),**  
74, OLD BROAD STREET, LONDON.

**MR. JAMES HUME, STOCK AND SHAREDEALER,**  
74, OLD BROAD STREET, LONDON, E.C.

Orders in the following shares are requested:—  
Wh. Mary Florence, £1 10s. Drake Walls, 20s. Chiverton, £33%.  
Prince of Wales, 24s. North Treskerby, 23s. West Chiverton, £59½.  
East Caradon, £9½. Chontales, £13%. Wheel Uny, £4½.  
South Condurrow, 19s. Taquaril, 7s. pu. East Grenville, £23%.  
WHEAL MARY FLORENCE.—Particulars of this mine may be had on application to Mr. Hume.

Mr. Hume's "Circular" for January is now ready. Price 6d. free by post. Buying and selling orders executed at the closest margins.  
Bankers: The London Joint-Stock Bank.

**MR. J. H. COCK, STOCK AND MINING SHAREDEALER,**  
74, OLD BROAD STREET, LONDON, E.C.

Fifteen years' experience in Cornwall and London.  
BUYER or SELLER of South Condurrow, North Treskerby, Margaret, Rose Hill, Chiverton, and every other description of mining shares, at close market prices.

**MR. E. J. BARTLETT, STOCK AND SHAREDEALER,**  
No. 30, GREAT ST. HELEN'S, LONDON, E.C., has SPECIAL BUSINESS  
West Godolphin, Summer Hill, North Pool, South Condurrow, Bryn Gwlog, East Agar, Great Vor, South Merilyn, North Treskerby, New Lovell, Great Wh. Chiverton, East Lovell, South Darren, Drake Walls, Wheel Uny, and East Levant.

Mr. E. J. BARTLETT recommends the immediate purchase of West Godolphin and South Merilyn shares. BUYER and SELLER of these shares at the best prices.

**MR. JOHN MOSS, STOCK AND SHAREDEALER,**  
ST. MICHAEL'S CHAMBERS, 42, CORNHILL, E.C.

Business as BUYER or SELLER in Chontales, Don Pedro, General Brazilian, Taquaril Gold shares.

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**ANNUAL REVIEW OF CORNISH AND DEVON MINES**  
FOR 1868.

PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST—SYNOPSIS OF CORNISH AND DEVON MINES," of Friday, Jan. 22, No. 516, Vol. XI., price 6d. each copy, forwarded on application, contains the COMMENCEMENT of his ANNUAL REVIEW, with ADVICE as to PURCHASE or SALE OF SHARES.

**CORNISH AND FOREIGN MINES—**  
TO SHAREHOLDERS AND OTHERS.

PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST—SYNOPSIS OF CORNISH AND DEVON MINES," of Friday, Jan. 22, No. 516, Vol. XI., price 6d. each copy, forwarded on application, contains information on the following mines:—  
New Wheal Lovell. Spearne Moor. Chiverton.  
Tincroft. North Levant. Great Wheal Vor.  
Providence. East Wheal Seton. East Wheal Lovell.  
East Caradon. West Frances. West Caradon.  
Wheal Seton. Wheel Uny. South Carn Brea.  
Treloy Consols. Wheel Owles. Frank Mills.  
West Great Work. Cook's Kitchen. Penhalls.  
South Great Work. Great Western.

**INVESTMENT OR SPECULATION.—A SELECTED LIST OF RAILWAYS, BANKS, MINES, COLONIAL SECURITIES, FOREIGN GOVERNMENT BONDS, &c.** forwarded to bona fide investors on application, in addition to the high rate of interest many of the above are paying, there is now every probability of a great rise in market value.

PETER WATSON, STOCK AND SHAREDEALER,  
79, OLD BROAD STREET, LONDON  
(three doors only from Hercules-passage, entrance to the Stock Exchange).  
Twenty-four years' experience.  
(Two in Cornwall and Twenty-two in London.)  
Bankers: The Alliance Bank, and the Union Bank of London.  
References given and required (when necessary) in all the principal towns of the United Kingdom.

**THE LONDON DAILY RECORD—STOCK AND SHARE LIST—STOCK EXCHANGE SECURITIES.** Published every evening at 5 o'clock. It contains the latest prices of railways, banks, mines, foreign stocks and bonds, financial, insurance, and miscellaneous shares, remarks on the daily rise and fall in prices, with advice as to purchase and sales. Annual subscription, £1 1s.; by post, £2 5s.; monthly subscription—by post, 4s.; single copy, 1d.; by post, 2d.  
PETER WATSON, Stock and Sharedealer, 79, Old Broad-street, London.

**MR. EDWARD COOKE,**  
STOCK AND MINING SHAREDEALER, 76, OLD BROAD STREET  
(and Mining Exchange), LONDON, E.C.

Mr. COOKE, having visited the Chiverton, Caradon, Great Wheal Vor (including West Great Work), Trumpet Consols, and Lovell districts, will feel much pleasure in affording information thereon, either personally or by letter.  
BUYER of Frank Mills, New Wheal Lovell, and West Great Work shares, at market prices. \* Sent free on application.  
Price-list sent free on application.  
Bankers: Alliance Bank.

**MR. W. H. CUELL,**  
No. 42, CORNHILL, LONDON, E.C.

SPECIAL BUSINESS.—Prince of Wales. East Caradon. Pedn-an-drea. Henrietta. West Chiverton. West Frances. West Toigus.

**MATTHEW GREENE, STOCK AND SHAREDEALER,**  
1, ST. MICHAEL'S HOUSE, CORNHILL, LONDON, E.C.

TAMAR VALLEY SILVER-LEAD, still recommends the purchase of these shares. The mine is progressing fast towards a highly remunerative state. See report in this day's Journal.

**BARTLETT AND CHAPMAN'S "INVESTMENT CIRCULAR AND FINANCIAL RECORD"**  
(Published on the first Wednesday in each month)

Comprises—A Comprehensive Review of the Stock, Share, and Money Markets; an Enumeration and Comparison of the Whole Circle of Investments; and Valuable Suggestions for Purchase or Sale.  
\* Sent free on application.  
No. 2, Bucklersbury, London, E.C.

**MR. T. ROSEWARNE, 81, OLD BROAD STREET,**  
LONDON, E.C.

T. R. has BUSINESS in the following mines, at close market prices:—  
Bedford United. Frontino and Bolivia. Tincroft.  
Chiverton. Great Wheal Vor. West Caradon.  
Chiverton Moor. Marke Valley. West Chiverton.  
Cook's Kitchen. North Treskerby. Wheal Grenville.  
East Caradon. New Lovell. Wheal Seton.  
East Carn Brea. Prince of Wales. Wheel Uny.  
East Grenville. Pedn-an-drea. Kitty (St. Agnes).  
East Lovell. South Crofty.

AN OFFER WANTED for the following shares:—30 West Drake Walls, 20 North Chiverton, 25 Brynpostig, 100 Redmoor.

T. R. is in a position to recommend several progressive mines that are safe for a great rise during the present year. Having had these mines inspected by competent agents, and having also inspected them myself, and from my practical knowledge of mining in all its branches, I have great confidence in recommending the mines I have selected for an advance in price. Those who have acted upon my advice have no reason to complain; and I never saw a better opportunity offered for making money in mining than the present.

Money advanced to any extent on good mining shares.  
Office hours Ten to Four. Bankers: Bank of England.

**MR. THOMAS THOMPSON, MINING OFFICES,**  
12, OLD JEWRY CHAMBERS, LONDON, E.C.

ROYALTON.—The steady increase in the price of tin is causing a great demand for shares in legitimate tin mines, and which, there can be little doubt, will become generally valuable. Investors, however, should be careful how they place money in deep and expensive mines, which can only pay profits with tin at high prices. They should rather seek an investment in those mines which, with extensive reserves, can pay profits with tin at its lowest price. Among the best of this latter class I place Royalton, and recommend the purchase of the shares wherever they may be met with. At their present price they are intrinsically very cheap indeed.

**THE MINING INVESTORS' ASSOCIATION.**

For the PURPOSE OF COLLECTING and DISSEMINATING TRUTHFUL INFORMATION on all MATTERS RELATING to the WORKING as well as the FINANCIAL MANAGEMENT OF MINES.  
To PURCHASE and SELL MINING STOCK of every description.  
To MAKE ADVANCES, at a moderate rate of interest for short periods, upon MINING STOCKS having a market value.

The services of some of the most truthful and experienced inspecting Agents have been specially retained for this Association.  
References to bankers and others given.  
THE ASSOCIATION DOES NOT QUOTE SHARES AT FIXED PRICES, but they have SPECIAL BUSINESS to transact in the following stocks:—  
GOLD MINES.  
Chontales, Pestarena, Don Pedro, General Brazilian.  
TIN MINES.  
East Lovell, Great Vor, Providence, and Wheal Kitty (St. Agnes).  
COPPER.  
Prince of Wales, Clifford, West Seton, Prosper United, Marke Valley, East Caradon, and North Treskerby.

One or two selected mines can be named that will, probably, double their present price within the next six months.  
Address.—THE MANAGERS, at the Office of the Association, 26, Nicholas-lane, Lombard-street, E.C.

**INVESTMENT, LOAN, AND BANK AGENCY.**  
Established 1839.

PUBLIC SECURITIES of every description Bought and Sold upon advantageous terms. Facilities for payment, and every reliable information afforded to Investors.  
LOANS granted, for one year or any shorter period, on Stocks and Shares having a market value.  
Five per cent. interest allowed upon DEPOSITS of all amounts.  
Money and Finance Agency Business generally undertaken.  
RICHARD TAYLOR AND COMPANY.  
No. 12, Clement's-lane, Lombard-street, London, E.C.

**MR. T. P. THOMAS, MINERAL SURVEYOR AND MINING AGENT,** 77, OLD BROAD STREET, LONDON.

MR. THOMAS, having had twenty-six years' experience in British Mining, is PREPARED to INSPECT and REPORT upon MINERAL PROPERTY.  
To capitalists desirous of investing in legitimate mining enterprise, and to owners of property containing mineral veins, Mr. THOMAS offers his services.  
Mining Securities Bought and Sold on the usual terms.

**MR. CHARLES THOMAS,**  
MINING AGENT, GENERAL SHAREDEALER, AND AUCTIONEER,  
3, GREAT ST. HELEN'S, LONDON, E.C.

Third Edition, price One Shilling; post-free, fourteen stamps.  
**MINING FIELDS OF THE WEST:**  
A PRACTICAL EXPOSITION OF THE PRINCIPAL MINES and MINING DISTRICTS OF CORNWALL and DEVON.  
Published by CHARLES THOMAS, At No. 3, Great St. Helen's, London, E.C.

**MR. JOHN GIBBS (late LANE and GIBBS), 2, ROYAL EXCHANGE, LONDON, E.C.**

MARKET VALLEY, EAST CARADON, WEST ROSE DOWN, and CARN CAMBORNE MINES.—Although difficult to effect transactions in these mines at times on the Mining Market the advertiser is always in a position amongst his correspondents to buy and sell at close prices, and does not hesitate to recommend a purchase in each and all of the above for a great advance in price and large dividends.  
GREAT LAXEY and SOUTH DARREN. SPECIAL BUSINESS in these mines.  
Bankers: London and County Bank.

ESTABLISHED SEVENTEEN YEARS.  
**GRANVILLE SHARP AND CO.,**  
SHAREDEALERS, 32, POULTRY, LONDON, E.C.

Bankers: London and Westminster Bank, Lothbury, London, E.C.  
RELIABLE INFORMATION GIVEN TO SHAREHOLDERS & INVESTORS.  
N.B.—It is quite impossible to "OFFER" a list of SHARES for SALE at FIXED PRICES, as market prices vary daily.

SPECIAL BUSINESS in the following Mines at the closest market prices:—  
Chiverton Moor. Great Western Mines. Trumpet Consols.  
Devon Great Consols. Great Wheal Vor. West Chiverton.  
East Wheal Lovell. Herodsfoot. West Wheal Seton.  
East Trumpet. Marke Valley. Wheal Trelawny.  
East Caradon. Nanglies. Wheal Uny.  
East Pool. Providence. Wheal Bassett.  
East Grenville. Prince of Wales. Wheal Mary Ann.  
East Chiverton. South Condurrow. Wheal Chiverton.  
Great Laxey. South Caradon. Wheal Grenville.  
Great South Chiverton. Tincroft. Wheal Agar.

SHARES WANTED.—20 TRUMPET CONS., £17 200 EAST CHIVERTON, 5 WEST WHEAL SETON  
50 NANGLES. 250 EAST TRUMPET. 150 NORTH JANE.  
Sellers will please state number and lowest price for cash.

Established Twelve Years.—Twenty-four Years' Experience.  
**MR. F. W. MANSELL, 44, THREADNEEDLE STREET,**  
LONDON, E.C., recommends the IMMEDIATE PURCHASE of the following shares:—  
East Caradon. Tamar Valley. South Condurrow.  
Drake Walls. New Wheal Lovell. Wheal Mary Ann.  
EAST CARADON, having advanced 200 per cent. since I first drew attention to them, offers a good opportunity of securing a large profit for those disposed to realise; at the same time, my opinion is that they will see a much higher price.

TAMAR VALLEY.—Rich lead is now being returned from this mine, which will leave a profit to the shareholders. Shares should be purchased.  
FOR SALE.—100 Remoor, 4s. 6d. 150 Wheal Crebor, 7s. 6d.  
75 Prince of Wales, 24s 6d. 15 Marke Valley, 9s. 50 Chiverton, £33%.  
100 General Brazilian. 50 No. Treskerby, 23s 6d. 3 W. Chiverton, £59½.  
100 Chontales, £13%. 75 Don Pedro, £3 8s 9d. 35 Wh. Grenville, 34s 6d

WANTED.—The offer of 10 or 20 Wheal Friendship shares.  
Bankers: London Joint Stock Bank.

**MR. HENRY MANSELL,**  
44, THREADNEEDLE STREET, LONDON, E.C.

EAST CARADON.—These shares have risen in price since I first advised the purchase nearly £7 per share, and will go better; closing price, 9½ to 9¾.

PRINCE OF WALES.—Parties holding these shares should take my advice, and sell.  
New Lovell, South Condurrow, and Tamar Valleys are safe for a rise shortly. Thirteen Years' Experience.  
Bankers: London Joint-Stock Bank.  
References exchanged.

**MR. G. D. SANDY, STOCK AND SHAREDEALER,**  
No. 48, THREADNEEDLE STREET, LONDON, E.C.

**MR. WILLIAM SEWARD, STOCK AND MINING SHARE BROKER,**  
19, THROGMORTON STREET, LONDON, E.C.

Every description of shares BOUGHT and SOLD at the best market prices.

**MR. SOLOMON GOMPERS, JUN.,**  
STOCK AND SHAREDEALER,  
3, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.

**MR. J. R. PIKE** has FOR SALE the undermentioned SHARES at the following net prices:—  
4 Cwm Eryn, £14. 50 G. Retallack, £2 12 6 15 Wheal Uny, £3 17s 6d  
20 Frank Mills, £3 12s 6 25 No. Treskerby, £1 3s. 25 Budnec Consols, £1.  
3 Herodsfoot, £43½. 100 So. Condurrow, 16s. 50 Colquite & Cal., £1½.  
15 Miners. 100 W. Mary Florence, £1 20 Cwm Darren.  
50 Prince of Wales, £1 29 100 West St. Ives, 2s. 6d. 50 Great Caradon, 6s 6d  
2 Trumpet Con., £15½. 10 Nanglies, 2s. 140 Wheal Ida, 3s. 3d.  
1 Wheal Seton, £29½. 100 West Kitty, 11s. 3d. 100 North Jane, 7s. 6d.  
50 Chiverton, £3 7s. 6d. 25 W. Grenville, £1 14 6 50 East Beeth.  
Parties may avail themselves of the above medium for the disposal of shares gratuitously unless sales are effected, when a commission of 1 per cent. will be charged.  
All shares for insertion should reach Mr. PIKE's office on or before Friday in each week.  
TIN MINES.—The price of black tin having advanced since the commencement of 1868 from £12 to £15 per ton, many mines can now be worked to advantage that formerly were unprofitable. Great care, however, should be exercised in their selection for investment. Mr. PIKE can recommend two tin mines for their present excellent position and dividends are close at hand. Although Mr. CHRISTIAN is the only person publicly recommending the purchase of shares in this sort, he goes so with the greatest of confidence, feeling assured that those who buy now will do well.

**MR. J. B. REYNOLDS'S "CIRCULAR" can be had**  
POST FREE on application.  
J. B. REYNOLDS, Ethelburga House, Bishopsgate-street Within, London, E.C.

**INTENDING INVESTORS.—The "FINANCIAL GAZETTE,"**  
published by Mr. Y. CHRISTIAN, should be consulted with a VIEW to the SAFE EMPLOYMENT OF CAPITAL. It contains Original Articles, a Review of the Money Markets, and a selection of investments paying 10 to 17 per cent., and such information as is necessary to guide intending investors.  
6, Bond-court, Mansion House, London, E.C.  
Bankers: Bank of England.

**INVESTORS IN MINING COMPANIES.—**  
MR. CHRISTIAN recommends the IMMEDIATE PURCHASE of NORTH LEVANT SHARES, whether bought to hold as an investment or to sell again. It is a splendid property, and dividends are close at hand. Although Mr. CHRISTIAN is the only person publicly recommending the purchase of shares in this sort, he goes so with the greatest of confidence, feeling assured that those who buy now will do well.

**CORNISH TIN MINES.—**  
Before investing in ROYALTON, get full information about EAST ROYALTON, from  
T. A. MUNDY and CO., 38, BISHOPSGATE STREET WITHIN; or  
W. HANNAM and CO., 449, STRAND.

**MR. EDWARD BREWIS, STOCK AND SHAREDEALER,**  
No. 34, OLD BROAD STREET, LONDON, E.C., has BUSINESS, for cash or account, in all the various Mining Securities at best market prices.  
SPECIAL BUSINESS in General Brazilian, Chontales, Don Pedro, Lovell Consols, and Taquaril.  
Bankers: The Alliance Bank, London, E.C.

## Original Correspondence.

## THE STANNARIES LAW AMENDMENT—No. 1.

The purpose of the Stannary Law Amendment Committee, now sitting in Cornwall—namely, the purpose of considering the present position of the law affecting mines in the Stannaries of Devon and Cornwall, and the first resolution of such committee—namely, that "The law at present applicable to the Cost-book System requires amendment," are the severest censures upon the Stannary Courts and their doings that have ever been passed since the institution of that jurisdiction. It is no dream, but a reality, that about a score and a half of the most eminent gentlemen, miners and lords of Cornwall, have at length been driven to censure and solemnly protest against the Stannaries Court, and its petted Cost-book System. That such censures should have been made, and such a protest should have been fulminated, is no wonder to capitalists resident out of the Duchy, for their only wonder is that Cornishmen have not found out before this the weak points of the Stannary and Cost-book Systems; and, consequently, the reasons why capital from without does not now, as of yore, flow into their country.

There was a time in Cornish mining, and a good and honest time it was too, when all adventurers were *in-adventurers*, men who daily wrought with their own hands in their sett, and disbursed their own moneys, and who after having personally seen, or heard read to them, a list of the merchants' bills, at once, and upon demand, paid their quotas, and felt that they ought to pay them. In such days riches were at surface, Nature's first fruits had not been gathered, her stores had not been monopolised, the fire-engine had not been thought of, and a promising sett might not only be had for the mere bounding of it, but the lodes when cut were mostly rich above water level, and so did not require machinery to work them. Then the adventurers were all known to each other, then they had faith in each other, and then the terms upon which they wrought were so thoroughly just as to equality, profit, loss, and management, as to afford due weight and information to every adventurer, how slight soever his interest in the adventure might be. Then the purser was one of themselves, a man known to all, and a mutual friend of all, and then the cost-book was a mere memorandum book, in which the costs were entered in the simplest manner, and in chronologic order. These were the *halcyon days* of Cornish mining.

But in the course of time the enterprise and speculation of Cornishmen had increased apace. Surface riches had been exhausted, Nature's first fruits had been culled, her stores had been monopolised, the fire-engine had been invented and applied to mining, the bounding system was no longer resorted to, and the working of setts in depth had become the rule, and, consequently, large capitals were necessary in order to ensure the success of an enterprise. Under such altered conditions the labour and money contributions of mere *in-adventurers* were no longer sufficient for due prosecution of the adventure, and the capital of *out-adventurers* was sought for and accepted, such *out-adventurers* being, for the most part, the mere nominees of the merchants who supplied the mine with materials. Then arose the first schism and breakdown in cost-book management, for the interest of the *bona fide* adventurer became antagonistic to that of the merchant adventurer. The desire of the former was for cheap management, that of the latter for expensive management, and in the result the adventure became divided against itself, and failed, except, indeed, in those rare instances in which the riches of the mine were too large to be absorbed by extravagant management. Other indirect results of the admission of such *in* and *out* adventurers were that the cost-book became a document difficult to understand, and its entries were based on abstruse principles of commercial bookkeeping, elaborated and refined to an extreme degree; and still more fatal to the system was the abolition of a simple management by the purser, and the substitution in his place of a complex direction by a committee of management, composed for the most part of the nominees of merchant adventurers, whose management was influenced more by the certain and safe profit derivable from supplying materials than from the uncertain and erratic dividends derivable from anxious and painstaking workings. The position of a merchant adventurer was then, as now, a very safe and enviable one. It was this. If the adventure failed, he had his profit on the materials; if it progressed and became a dividend mine, he had his profit both on materials and his shares. In either event he had profits, supplemented in most cases with a remuneration, little or much as the case might be, for directing the adventure—or, rather, for directing his own interests. Those were the *dark days* of Cornish mining.

At length, and within the present century, arose the practice of starting an adventure by sinking a first or trial shaft of 200 fathoms, and the erection of one or more engines, having 30 to 50 in. cylinders. Then the combined capital of Cornish adventurers were as nothing, and funds to the amount of 20,000*l.*, 30,000*l.*, and 50,000*l.* per sett were sought for out of Cornwall; and for the best of all reasons, because such sums could not be obtained within it. Still, the iniquities of the merchant adventurer were perpetrated, and London and other capitals were for a time, only just past, deluded of their cash by the plausible and specious simplicity and inexpensiveness of the Cost-book System, a system which it is necessary here, and once for all, to state is utterly unsuitable for any but trial operations on the most limited scale. These were, and are, the *disastrous days* of Cornish mining.

In concluding this, my first letter, I urge upon the committee, with an authority based on 20 years' experience of the Cost-book System, as viewed in all the great centres out of the Duchy, that one of the enormous evils in connection with the management of cost-book companies in Cornwall is that *merchant adventurers, or their nominees, are permitted to have seats at the board of management, and vote supplies*. To abolish such a state of things for the future would be to remove one of the worst points in the management of cost-book companies.—Jan. 19. T. T.

## THE FACTORY EXTENSION ACT.

SIR,—Although several letters have appeared on this subject, I feel its importance is so great to the general public that I ask the favour of your insertion of the following facts, which I believe to be no overwrought examples of the hardships brought about by the working of the Act, as now in force. The Government Inspector has no discretionary power given him, and it seems nothing short of an appeal to the Home Secretary can obtain any mitigation of the rules so stringently enforced.

A widow had two sons in our employ, one aged 13, and the other between 10 and 11 years old; they read, write, and cipher fairly well, and there is a night school in connection with our works open to them, to which we give personal attention. The united earnings of the boys enabled the widow to maintain herself and family in respectability, until the "blessings" of the Factory Act compelled us to discharge the younger lad from our employ (his occupation was attending a donkey-engine, under an open roof, and under the surveillance of our engineer). The poor widow, being now deprived of the earnings of her boy (7*s.* 6*d.* per week), can no longer pay her ground rent, or provide suitable food for her family, much less pay the school pence for the boy, who is, therefore, cast in idleness upon the village until he becomes 12 years old. Great is the competition at our home, in our trade, while abroad, France, Belgium, and Germany are treading on our heels, and we cannot pretend to give pecuniary aid in such cases, as many, unfortunately, arise. We already pay several hundreds a-year in poor-rates, and it is so hard upon us, and the men who have spent their savings in building cottages, to have the rates augmented, as they must be, by the additional persons who must now seek parish relief. No other course is open to this widow.

Furthermore, since Jan. 1 we have to give a compulsory half-holiday every Saturday (as well as eight half-holidays during the year) to our workpeople, for stopping the women and young persons necessarily stops the greater part of the men engaged in manufacturing what must be completed by women or young persons. The half-holidays which must frequently arise from small accidents to the machinery do not count as holidays, because notice cannot be given the preceding day. Surely this stipulation is a vexatious one, when the object of the half-holiday is simply to afford the "young persons" time for exercise, and relief from labour.

We have never allowed any sort of work or repairs to take place in our manufactory on Sunday, and the unavoidable weekly repairs

to furnaces and machinery are done on Monday morning, so that our fires do not come to their proper heat until midday on Monday, which causes our employees to take almost a half-holiday on that morning; and these repairs cannot be done on Saturday, as the fires are red-hot. The upshot of it all is that we and the workmen must content ourselves with five days' work instead of six; and while the character of our manufactory is totally unlike a cotton factory, for example, we must, perforce, submit to the same regulations, with a few trifling exceptions.—Jan. 20.

## ANOTHER TIN-PLATE MAKER.

## USEFUL EFFECT OF MINE VENTILATORS.

SIR,—In a highly interesting communication upon this subject, Mr. R. P. Rothwell observes that in making any comparison between ventilators, whether they be furnaces or fans, the quantity of air circulated per pound of coal burnt can, in itself, prove no criterion of effectiveness. The efficiency of a ventilator is measured by the percentage of the force applied to it which it can utilise; it has no reference to the nature of the motive-power—that is, a fan yielding or utilising 60 per cent. of the force applied to it is equally efficient, whether the engine driving it is utilising 2 or 20-horse power to the pound of coal burnt per minute. The economy of the ventilator depends not only on its efficiency, but on that of the driving-engine. The economy of mechanical ventilators depends, therefore, directly on the economy of the driving-engines, and any rational comparison of different ventilators must be made by assuming each to be driven by the same engine. Experiments made with one of Carrett and Marshall's engines, at the recent Exhibition at Paris, gave over 22-horse power per pound of coal per minute, and many other makers turn out engines equally good; some of the French makers guarantee 25-horse power. Assuming all our ventilators to be worked by the same kind of engine, (say) one that will yield only 8½-horse power per pound of coal per minute (and it is to be hoped that before many years this will be much below the duty of mining engines), we can make a rational comparison of their relative value. The subjoined table gives the results of 19 experiments on the Fabry ventilators at the Goufre and Bonne Esperance Collieries:—

	Min.	Max.	Mean.
Number of revolutions per minute.....	27.8	59	37.9
Drag in lbs. per square foot.....	4.5	17.65	11.4
Volume of air cubic foot per minute.....	8,880	26,720	20,000
Force applied in horse-power to ventilator.....	4.88	13.88	10.13
Force utilised in horse-power.....	2.8	9.28	6.26
Percentage of useful effect.....	52	70	58.87
Horse-power utilised, per lb. coal per minute.....	—	—	5.2

The mean volume of air circulated was 2000 cubic feet per horse-power expended, and 3100 cubic feet per horse-power utilised, or 17,000 cubic feet per minute per lb. of coal consumed. Ponson, in his "Treatise on Coal Mining," published in 1853, gives the useful effect of the Fabry ventilators at 58 to 63 per cent. Burat, in his "Exploitation des Mines," gives it as high as 71 per cent. Ponson, in the supplement to the treatise above mentioned, published in 1867, states that 80 of these ventilators were at work in Belgium, France, and Germany. The useful effect of Lemielle's fan is given by the same authorities at from 50 to 63 per cent. B.

## INSURANCE AGAINST COLLIERY ACCIDENTS.

SIR,—A good deal has been said of late and raised in favour of "insurance" against loss of life and accidents in our collieries, and when we reflect upon the lamentable results attending the often repeated explosions, and especially so about this season of the year, when the prosecution of the works are apparently more subject to, and pregnant with, danger and catastrophe than during the spring and summer months, I may be excused in submitting to your numerous readers the following statistics and observations, in the hope that other practical and more interested authorities will take up the subject for the miners' good.

It is computed that the accidents in our collieries may very fairly be estimated as the direct causes of the destruction of 1000 lives annually. There were in the year 1865, 3268 collieries in Great Britain, employing no less than 307,542 miners, averaging slightly less than 100 workmen each. The result of this combined labour was the yield of 98,150,587 tons of coal, equal to 320 tons annually, or 1 ton per diem, Sundays excepted, for every miner engaged. The computed value of this product at the pit's mouth was 24,500,000*l.* sterling, (say) 5*s.* per ton, or 5*s.* per diem, for all and each of the miners engaged throughout all the vast fields then being explored.

This mighty machine of labour and wealth is so widely diffused throughout the country, and so powerful and self-sustaining in itself, that foreign help is scarcely required or needed in effecting an ample and truly efficient "insurance" for itself.

The subscription of 1*d.* per day by the 300,000 miners at work would raise 7500*l.* per week, or 390,000*l.* annually, a sum equal to 390*l.* for every life lost in the accidents attending coal mining pursuits. Surely this would prove no great burthen to the miner, and could be rendered easy of collection, whilst the boon to the labourers in a social sense, from increased domestic happiness in his home, arising from the fact of his wife and family being provided for in case of death from explosion of foul air or other causes, would far more than compensate him for the 1*d.* per day "sacrifice." Again, the contribution of 1*d.* per ton of coal yielded to the owners would constitute a fund of 408,960*l.* annually, equal to 409*l.* to the representatives of every man annually sacrificed in collieries.

The average price of coal at the pit's mouth is 5*s.* per ton. This sum seems small as a recompense to the owners of mines, having due regard to the costs of opening out the "seams," and prosecuting the "works," to an extent necessary, in most instances, to secure success; added to the many varied, and in instances oppressive, burdens levied on the industrious and hard working miner; still in the year 1865 the gross revenue was stated to be 24,537,646*l.*, and since that date the yield and value of our collieries must have considerably increased; their aggregate worth cannot now be less than 140,000,000*l.* to 150,000,000*l.* sterling. To pay 5 per cent. interest per annum on this large amount of capital a sum of 7,500,000*l.* would be required, equal to 31 per cent. of the value of coal raised at the pit's mouth, say 1*s.* 6*d.* per ton; thus 3*s.* 6*d.* per ton only is left to discharge and pay the costs of production, rents, materials, machinery, and the numerous expenses ever attending mining, and especially coal mining, enterprise. It is, therefore, equally burdensome to levy this tax of 1*d.* per ton on the coal owner as it is to levy a conscription of 1*d.* per day on the labour of the miner, notwithstanding that the first would raise an annual revenue of 408,960*l.*, and the latter of 390,000*l.*, a sum in either case equal to the exigencies and requirements of providing for all the families of those sacrificed annually in the prosecution of our 3268 collieries. Lastly, pray let us enquire somewhat into the actual commercial worth of this vast product of native labour—namely, 98,150,587 tons of coal, valued at 24,500,000*l.* sterling at the pit's mouth. If it be worth only 5*s.* per ton to the proprietor of coal mines, it is worth 20*s.* to 22*s.* 6*d.*, and up to 25*s.* per ton to the consumer in London and throughout a large section of England, and far more when conveyed by our ships to colonial and foreign ports. To form, however, a vague estimate of the actual value of our coal productions to the Mother Country, or rather the general commonwealth, we will estimate the average value of coals to the consumer at 15*s.* per ton, and this gives us the large total of 75,000,000*l.* annually. One-third is appropriated to the producer, and two-thirds, or 50,000,000*l.*, annually absorbed in carriage by rail and ships, with other means of locomotion, added to the gains of merchants, traders, clerks, and collectors, situate in every city, town, and village throughout the length and breadth of the land. These occupations must in a combined form give employment and remuneration to at least 300,000 others than those employed at the mines in its production; consequently, home industry associated with coals find employment for 600,000 workmen, and sustenance for their families. It appears to us, in conclusion, that a fund of "insurance against accidents" should be borne by the owners of coal mines, the miners themselves, and also by the carriers by railway and ship, in conjunction with the merchants or consignees of the products. Thus 1*d.* per ton of coal would produce the large sum of 408,960*l.*, one moiety of which, if levied on the owner and the miner equally, with the other moiety on the owners of locomotion, combined with merchants and traders, who together absorb a sum of 50,000,000*l.* annually, we have a provision of 400*l.* for the family of every deceased miner by accident,

and involving a tax on all parties interested of only about one-half per cent., on the commercial value of coals to the consumer.

R. TREDINICK, Consulting Engineer.  
Crown Chambers, Threadneedle-street, Jan. 21.

## IMPROVED SAFETY BLASTING-POWDER.

SIR,—As there can be no doubt that the inconvenience and danger attending blasting operations in mines would be materially reduced by the use of a powder which can be kept in an absolutely explosive state until actually required for charging the hole, and which would give a less suffocating smoke afterwards, a brief description of an improved safety blasting-powder, invented by Mr. Pedro Nisser, will not be uninteresting. The improved powder is composed of two distinct compounds, which so long as they are kept separate from each other are quite innoxious, and, therefore, perfectly harmless, but when mixed together possess all the properties of good blasting-powder. He proposes to make the powder of two distinct qualities, the one being smokeless, or nearly so, and, therefore, applicable to underground work; the other being of a commoner description, adapted to granite quarries and surface work generally. For the manufacture of the first, or No. 1 compound, he uses either nitrate of potassa or nitrate of soda, and mixes them with either chlorate or perchlorate of potassa, or both, in proportions varying from 5 to 35 per cent. of each of these salts, according to the required strength of the powder; these salts should be pulverised, and thoroughly mixed together. The No. 2 compound consists of loaf sugar, with which sublimate of sulphur is mixed, in proportions varying from 25 to 35 per cent. of the sugar to the sulphur, and to these he adds from 8 to 10 per cent. of either vegetable fibre, or charcoal, or both, according to the required strength of the powder. The above-mentioned compound ingredients may be used either in equal parts of each, or in proportions varying from 15 to 25 per cent. less in quantity of the ingredients mentioned as No. 2 compound, the proportions being determined by the weight. Blasting-powder made of the foregoing compound ingredients does not ignite by friction or percussion, and may be transported with perfect safety; the cost of manufacture is also considerably less than blasting-powder as heretofore made.

Let the fact that chlorate of potash, when mixed with sulphur, as at present practised in the manufacture of certain kinds of matches, will explode upon being subjected to friction, should be raised as an objection to the new powder, it may be mentioned that Mr. Nisser has ascertained that by combining the sulphur with other ingredients, as already described, explosion will not take place by friction, even though the chlorate and sulphur are combined in a dry state, and he considers this a very important feature in the manufacture of blasting-powder, as it ensures perfect safety in its manufacture, transport, and storage, and admits of chlorate of potash being safely mixed with sulphur, for the production of expansible gases. The proportions of the several ingredients used, which are found to succeed best in practice, are—for the underground powder: chlorate of potash, 65 parts; nitrate of potash, 5 parts (these two ingredients are combined and kept separate from the others); loaf-sugar, 18 parts; sulphur, 6 parts; wood fibre, 4 parts; and charcoal, 2 parts; making together 100 parts in the two compounds; these compounds, when mixed together and exploded, produce, instead of a dense smoke, a very light vapour, which disappears instantaneously, thus presenting an important advantage to miners, by enabling them to resume their work immediately after blasting, instead of having to wait a considerable time for the smoke to clear out, as is now the case when ordinary blasting-powder is used.

But where the absence of smoke is not of material consequence, a powder quite as explosive may be produced by mixing—chlorate of potash, 20 parts; nitrate of potash, 45 parts (kept separate as before); loaf-sugar, 5 parts; sulphur, 12 parts; wood fibre, 5 parts; charcoal, 3 parts; and mineral coal, 10 parts. The powder made with these ingredients gives off an abundance of smoke when exploded, but it can be very cheaply made, and is well adapted for surface blasting, and for quarrying work generally.—Jan. 20. H. J. T.

## MINING IN VICTORIA, AND CORNISH MANAGERS.

SIR,—I have been much interested in reading Mr. Thomas Carpenter's letters on the colony of Victoria, and believe his statements undeniable with regard to the immense profits realised from the gold mines in the district of Ballarat; but, having been in Australia in the years 1852-3, I entirely differ from him in attributing the failures of companies at that time to the incompetency of the Cornish managers; and here I would remark that we have seen so many of those unjustifiable charges of late on the agents and managers in and from Cornwall, that if not contradicted it will soon be said that nothing good can come out of Cornwall.

At the time referred to the thousands of diggers, both in Victoria and New South Wales, were unanimous in offering every opposition possible to companies, and as soon as the company's men landed at Melbourne or Sidney they were provided with money, and aided by the diggers in making their escape; and in less than two months after their arrival I knew many of them in possession of several hundreds of pounds. Thus the managers, deserted by their men, without any fault of their own, were left powerless, and the golden fleece that Mr. Carpenter says was wrested from them they never had the power to possess. There was little or no chance for companies in those days; the gold fever was raging high, and every man was his own master. Ships in the harbours were abandoned, the crews having gone to the diggings. Every able-bodied miner in the Burra Burra and other copper mines left for the same purpose; in fact, nothing but excitement prevailed all over the country; but time has brought its change, and a bright future for Australia seems certain, for with its abundant mineral wealth, and thousands of square miles of good land to cultivate, cities to build, and railways to make, this country must flourish for ages to come. And we hope Mr. Carpenter will succeed in inducing capitalists to speculate more than they hitherto have in the rich gold fields of Victoria, and we cannot doubt but satisfactory results will follow.—*Flintshire, Jan. 21.* R. NANKIVELL.

## RHENISH PRUSSIA.

SIR,—The railways in progress in the Rhenish provinces of Prussia are more important as regards the results which they propose to attain, and the mineral districts which they will lay open, than for the extent of line to be constructed. The communication between North, Central, and East Prussia, and Frankfurt, South Prussia, Bayreuth, and South Europe, will be greatly facilitated by the line forming a junction with the Köln-Giesener Railway (Cologne to Giesen) at Troisdorf, about 1½ mile north from Siegburg, passing through Königswinter, Honnef, Rheinbreitbach, Linz, and Neuwied, to a point on the right bank of the Rhine, opposite to Coblenz, where it forms a junction with the railways already constructed to Central Germany, and to Frankfurt and South Germany. This line is highly important as a military point of view, inasmuch as it establishes direct communication between Cologne and the fort of Ehrenbreitstein, and also a second and rapid communication between the last-named fort and Magdeburg. There will then be two complete lines of railway, the one on the left, and the other on the right bank of the Rhine, available for military operations and for the more speedy transmission of men and material. This line, which has been commenced simultaneously at a great number of points, will be opened for traffic in the summer of this year. In addition to strengthening the military position of Prussia in the direct manner before alluded to, it will contribute to the sinews of war by opening up important mineral districts. The dues or royalties belong to the Crown, and by providing labour, and thereby promoting contentment amongst the labouring classes in this, not the most contented, part of the kingdom of Prussia. Passing between Siegburg and Coblenz, it will open up the vastly important and rapidly progressing mineral districts of Honnef, Rheinbreitbach, and those further south, which are even more partially developed, having less easy access to the river. The directors of this line of railway are fully alive to the fact that they live and flourish by trade; and, on an application made by the mine proprietors of the Honnef and Rheinbreitbach districts, they have fixed the sites of two stations, one near to and south of Honnef, for the joint accommodation of the Honnef and Rheinbreitbach districts, and the other about one English mile south of the last-named place, for the use of the Marienberg Copper Mine, on which large pumping and

winding-engines are erected and set to work with astonishing success; and of the St. Josephsburg Copper Mine, for the extending and working of which an English and German company is in course of formation, one-fourth of the capital to be taken up by German and the remainder by English capitalists.

The German subscription list is nearly full, and includes some of the most influential, able, and enterprising mining men in Germany. As yet no prospectus has been printed. A large portion of the ores sold from this mine produced over 30 per cent. of copper. The greatest depth is 45 fathoms under adit, and the profits up to the time when the mine ceased to work, in consequence of the insufficiency of the engine (a 12-horse power pumping and winding-engine), the profits divided were very large. A concession has also been obtained for a line to be named the Mainsieg Railway, which will commence at Hatterheim, and thence run through Limberg, Huckenburg, Altenkirchen, and Ukerath to Trorsdorf, by Siegburg. This will lay open another, or, perhaps, more properly, another part of the same important mining district, and both these lines will contribute greatly to the development and extension of the iron and coal trade of Rhenish Prussia. The works on the Kôhi-Trier (Cologne and Treves) Railway are being pushed on with vigour, to connect Central Prussia with her great military entrenchments near Trier (Treves), and also to open up her mineral resources on the left bank of the Rhine; this will bring into active operation one brown coal, seven ironstone, and two lead mines in the district of Wittlich. Six ironstone mines are in limited work, and fifty idle for want of facilities for the transit of the raw material in the locality of Bithburg; these will all be actively worked. There are many others idle and languid from the like cause. These railways will infuse new vigour into the mineral trade, for which the coal proprietors are making active preparation, by the extension and resuscitation of old, and the creation of new collieries.

Bonn, Jan. 21.

CORRESPONDENT.

MANGANESE IN NORTH WALES.

SIR,—In your valuable Journal of Jan. 9, "T. G." writes on the above subject, and, so far as his views refer to the general richness in minerals of the mountains in North Wales, including the neighbourhood of Bala, I quite agree with him. But as to the particular 300 acres leased by the company he names, I, as a practical miner, must differ, unless something has very recently been discovered there to prove "T. G." correct. As he possesses "a taste for geology and mining," he will, or ought to, understand the difference, for profitable mining purposes, between irregular and shallow surface deposits, or pockets, of manganese and well-defined veins. If he has seen any of the latter within the 300 acres alluded to, it will give the possessors of "British capital," whose attention he wishes to attract, more confidence if he will give such a detailed description of the veins, particularly of their appearance in depth, as will afford an idea to miners whether the company named by him will turn out an undertaking profitable to the shareholders as well as to the inhabitants of the locality alluded to.

A PRACTICAL MINER.

MINING IN CARDIGANSHIRE.

SIR,—I promised in my last, which appeared in your columns of Jan. 16, respecting the discovery at Cwm Darren, that I would in a few days give you some particulars respecting the mines in this county; and, first, it is gratifying to observe that during all the very dull times which mining has recently passed through not one of the Cardiganshire mines has succumbed to the pressure, but, on the contrary, they have gone, and are still going, on satisfactorily. I will, then, furnish you with a brief account of our mines, beginning westward in the silver district. This being the case, I shall first notice the BROXFLOYD MINE, which has kept up its regular dividends, has greatly increased its reserves, and, as appears by the last report, will increase its returns and profits—sufficit to say, the mine is an excellent one, and was never so good as at present. I next come to GREAT CWMYSYLOG, where in the past few months some trials have been pressed forward to reach the great body of ore worked from surface for 250 fms. long, and, on an average, 6 fms. wide continuously. This bunch will soon be entered (if not by the present company, who appear to be embarrassed, it will be by others, as there are a great many applicants for it), and a great and lasting mine. In my opinion, will be opened. The next I allude to is CWM DARREN, to the east of Great Cwmysylog, and between it and the East Darren, a set of more than a mile long on the course of the lodes, and which has been recently started. The lode being worked on commenced being productive at a depth of some 15 fathoms from surface, and continued to improve gradually until it reached a depth of 25 fms. from surface, when one of the ribs in the lode suddenly opened from about 3 in. wide to 12 inches wide, half of which is solid ore, and from its situation, and richer as the lode is being sunk on; and as the lode forms a junction with a very rich vein 200 fathoms to the west of the present discovery, there is every reason to believe that through this distance one of the greatest courses of ore worked in the district will be found. This is the great discovery of 1868, and as the mine is divided into a small number of shares, it is not very likely ever to get into a great number of hands, and in all probability the mine will be held for the dividends, without too much of the transferring system from hand to hand. Those that are in will do well to stay in. I will next take the EAST DARREN, which has increased its reserves, and paid its usual dividends; this property never looked better, if at any time so well, as at present. SOUTH DARREN has paid its usual dividends, and looks well, and may safely be considered as a lasting dividend mine. CWM REFIN has paid its usual dividends, but owing to the eastern levels having reached their boundary they have had to encroach on the reserves. I suppose, however, something will be done to get matters right again, and that Cwm Refin will again become rich as it has ever been. There are good chances, besides the eastern ground, here in my opinion. BWLCH CONSOLS has opened out extremely well during the past year, has immense reserves, and paid its first dividend, which will now be regularly forthcoming. At the CAE NANT MINE the new lode has not been cut, but the cross-cut driving must be very near to the lode. So much for the silver district. I now proceed east to PLYNLLIM MINE, where their profits, I hear, are about 1500 per month, on a return of 40 tons. WEST ESGAIN LLEE is looking better; the returns and cost about equal. POWELL'S MINE is returning from 25 to 30 tons per month, leaving a margin of profit. BWDRAIN CONSOLS is now returning 30 tons per month, leaving good profits, and, as the machinery is completed, I expect to see this and Powell United both enter the Dividend List before the end of the year; and I look on both as good and substantial properties. The mines in the Rheidol Valley at work are the VALLEY OF RHEIDOL, working at a loss; GLAN RHEIDOL, or the CARDIGAN LEAD, ditto; the IMPERIAL, ditto; but I am not sufficiently acquainted with their prospects to speak of what they are likely to do. The GOTHIC is raising ore on its own, and the RHEIDOL UNITED has been selling blends and ore enough to pay its costs. ALTY-CRAB MIXE, near Tallybont, has been recently started, and I hear they have good indications for getting ore. PEMPOMPREN is much as usual—about paying cost. At PWL BOMAN they have made a valuable discovery, and are likely to have a good mine. I hear, also, that a sett, called ARGOLLYWD, has been set to work in the neighbourhood. At LLAWR CWM BACH a good course of ore has been discovered, by cross-cutting at the 16, but the lode requires a greater depth to make good and lasting profits. I now come to the LISBURNE MINES, which are much the same as they have been ever since I have been here (nearly thirty years). Their returns for last month, when the days were shortest for surface operations, were 34 tons, the highest price being 131. 14s., the lowest 111. 8s. Their returns and profits will, no doubt, be much the same for many years to come as they now are. To the west of Frongoch (being the principal of the Lisburne mines) is the DRYNTSWITH, where they are carrying in their trials with much spirit, and I doubt not some of them will be attended with good results. CWMYSYTWIT is not looking so well at present as it has been for some years past, but is still giving regular dividends. There may be some set or two more at hand, but being nothing, as there are some very large and promising mines about being started in the district, I purpose making them a consideration for another communication at no very distant date.—Goginan, Jan. 20.

ABSALOM FRANCIS.

ST. JOHN DEL REY MINING COMPANY.

SIR,—If evidence were wanting (which, unhappily, it is not) to prove the practical value of the suggestion of a large shareholder—that operations, save those in connection with the sinking of the two new shafts, should be altogether abandoned—it is abundantly supplied by the advices by the last mail, a copy of which I have just received. It is painfully evident that, if some steps be not forthwith taken to materially reduce the monthly expenditure, the whole of the reserve will be frittered away long before the two shafts have been sunk to the required depth of 175 fathoms. I find that the operations during November have resulted in a net loss of not less than 2302l., less 119l. profit on Fernan Pass. As the expenses in connection with the sinking of the shafts will gradually increase in proportion to the depth, exclusive of the augmenting outlay for timber, &c., it is pretty clear that the reserve fund will fall very far short of the requisite capital, and that without taking into consideration the item of 10,000l., the amount computed as sufficient to provide the shafts when completed with the necessary pumping gear, &c. it is impossible to conceive what possible object our manager can have in continuing to raise and reduce such enormous quantities of wretchedly poor mineral that it cannot even pay for bringing to surface, to say nothing of the expenses of reduction. If my memory serves me, I think our manager, in some of his recent reports, stated that ore yielding less than something like 3 osts. of gold per ton could not, under any circumstances, be treated, except at a loss, and yet we find that month after month thousands of tons are raised and reduced, which yield considerably less than 2 osts., as, for instance, the 6000 tons in November, which yielded only 1189 osts. Upon this point it would appear that Mr. Gordon awaits some special instructions from this side, for he says—"The month's working, I am sorry to say, shows a loss of 1577l. (that is, exclusive of the expenditure in connection with the new shafts), although this is less than was sustained during October. The outlay has been kept within the amount estimated, but the inadequate gold return, which is so much less than we had reason to expect, caused the loss recorded above." This, to my mind, clearly points to the practical adoption of the suggestion already referred to—that all operations, save those in connection with the sinking of the new shafts, should be forthwith abandoned. The executive must not forget the fact that the reserve fund represents only

it per share, and that shareholders are beginning to calculate for themselves especially in the only present tangible value for the 15l. per share paid-up; and, when we know that this reserve fund is being gradually diminished, it is in no way surprising that, upon the principle "that a bird in the hand is worth two in the bush," many are selling their shares when they can use the par for them, whereby they place themselves in the comfortable position of being able to watch without anxiety the issue of events, which for the moment, at least, certainly do not present a very encouraging aspect. AN ANXIOUS SHAREHOLDER. Jan. 21.

THE RESOURCES OF COLORADO—No. VIII.

SOUTHERN COLORADO.

SIR,—All the country south of the Divide, embracing the head waters of the Arkansas and Rio Grande, and comprising some of the finest agricultural lands of the State, is known as Southern Colorado. It is divided into eight counties. The irrigation necessary to successful farming is mostly performed by Mexicans, who comprise a large share of the population. Here the two peoples come together. The one from the South—half civilized, ignorant, and indolent: the other from the North—adventurous, brave, energetic, enlightened, and progressive, holding out the hand to bring their less gifted brethren up to their level. The Yankee from New England, the Planter from the Carolinas, the Hoosier from Indiana, meet here. Each finds that he has something to learn from the other, and all find that they may learn something from the depressed and down-trodden Mexican, who, when he is selling their shares when they can use the par for them, whereby they place themselves in the comfortable position of being able to watch without anxiety the issue of events, which for the moment, at least, certainly do not present a very encouraging aspect. AN ANXIOUS SHAREHOLDER. Jan. 21.

El Paso County is so called from the mountain pass at the foot of Pike's Peak, and extends southward about 50 miles, including 30 miles to the beautiful arable valleys of the "Fontaine qui bouillit" and tributaries. Stone and coal abound. The county seat is a pleasant town, designated Colorado City, picturesquely situated at the foot of the celebrated Pike's Peak Mountain, almost under the shadow of this gigantic dome, like a villa at the foot of the Swiss Alps, and is surrounded by natural curiosities. Here are the famous Soda, or Boiling Springs, from which "Fontaine qui bouillit" takes its name. Here, also, are those wonderful old porphyritic rocks called the "Garden of the Gods." Fossils and petrifications, of great size, beauty, and interest, are found in immense quantities. Colleges, academies, and schools, excellent stores, good schools, several Protestant churches, and good society. It is connected with Denver City by a first-rate stage line, over such excellent roads as to astonish the traveller, and which are found throughout the State.

Fremont County, the largest part of which is mountainous, lies southward of Pike's Peak, and reaches 25 miles east of the mountains. It is bisected east and west by the Arkansas River, in the valley of which are the principal arable lands. Timber is abundant, and there are inexhaustible beds of coal, limestone, marble, and gypsum. Petrology is also abundant, and has been produced in considerable quantities. Canon City, the county seat, is situated on the Arkansas River, at a point where it leaves the mountains, passing through a stupendous rocky canon. The town is small, and contains but few families, but has all the necessaries and surroundings of a western village. A site has been selected here for a penitentiary, and \$40,000 appropriated by Government to build it. Soda springs abound in its vicinity.

Pueblo County is in the heart of the Arkansas Valley, and contains the largest amount of farming lands of any southern county. It extends from the eastern boundary of Fremont County to the Kansas line, nearly 100 miles in length, and 50 miles in breadth. The Arkansas River runs lengthwise through its centre, and it has also the valleys of the Huerfano, San Carlos, and Lower Fontaine qui bouillit. There are no mountains or waste land. There are several large farms or ranches located throughout each, from three to five miles square, and containing a population of from 50 to 200 each, mostly Mexican labourers and tenants. The county seat—Pueblo—is a thriving village, of about 600 inhabitants, and is the centre of trade for Southern Colorado, which in 1857 amounted to half a million of dollars. The town is located on the Arkansas River, which is here bridged, and affords immense water-power for manufacturing purposes. From the great facilities of wool-growing in the vicinity it is likely to become a manufacturing point for woolen goods.

Huerfano County is a fine agricultural and grazing region, well timbered, and extending into the mountains, abounding in coal, gold, silver, and copper. In the south-western corner are the famous Spanish peaks, and at the foot of them, in the beautiful valley of the Cucharas, the largest farm in Colorado, extending 13 miles along the valley, and is 2 miles wide. Wheat is the staple of this county. Las Animas County is the south-western part of the State, and borders on New Mexico. The River Las Animas runs through it, and its valleys are among the finest in Colorado for farming; and it is well settled. Wheat is the great staple, but large numbers of cattle and sheep are raised. Immense coal fields crop out for miles along the stream. Trinidad, the county seat, is a fine, thriving town, and has a brisk trade with the Moreno Mines, lately discovered on the line of New Mexico. These mines, discovered within a year, are reported to be immensely rich, and thousands will doubtless rush towards them.

Costilla County lies in San Luis Park, a vast elevated basin in the mountains, formed by the Colorado. The county seat is located at San Luis de Culebra. The streams, all tributary to the Rio Grande, are the Costilla, Culebra, Trenchara, and the Sangre de Christo. Agriculture and stock raising are the principal occupations in the county. Conejos County lies on the west side of the Rio Grande, and is watered by the Conejos and San Antonio streams. The county seat is Guadalupe, where the Indian agency is situated, and is one of a dozen small Mexican towns located along the Conejos.

Parkers and Cotes is in the upper north-west part of the San Luis Park, on both sides of the Rio Grande. It was surveyed and formed only last year, and contains but a few hundred Americans. The principal settlement is a German colony. The country is well watered, and offers great inducements for settlement. All grain and vegetables, with the exception of Indian corn grow to perfection. Sheep and cattle exist in large numbers, and may be increased indefinitely. The streams are full of brook and salmon trout, and the mountains filled with game. Water-fowl are also abundant. The scenery of this valley is as beautiful as that of any other in the State. It has enjoyed a happy fate, having furnished the scenes of many a border romance and 10-cent novel, and is the theatre of the classic age of the Trapper life of the famous Kit Carson and his companions, who now all sleep beside their hatchets, beneath the turf of this "Once Happy Hunting Ground."

With this paper, then, ends the description of Colorado Counties, which I have attempted so imperfectly to depict and describe. Of course, in such a hasty and brief mention of what is so wonderful, and hitherto so unknown a region, much of the most interesting has been overlooked; but I have endeavored faithfully and truthfully to describe the country as it is, and to understate rather than overrate its unbounded resources. I hope that I have said enough to convince even the most sceptical that there exists a country west of the Missouri worthy the attention of the settler when looking for a settlement, and which in the lifetime of his son or sons will assuredly become one of the most influential, powerful, and wealthy of the United States of North America. R. H. L.

MINING IN COLORADO, U.S.

SIR,—It may be of interest to many of your readers to know what is being done in Colorado in the way of developing mines, &c. There has been no time since Colorado was first discovered that its mines have paid so well as at present. New discoveries are daily being made here, and the richest ores ever known to exist in the territory have recently been discovered. At Georgetown, the centre of silver mining operations, located at a point that four years ago was a wilderness, are now five reducing-works erected, of very limited capacity. Messrs. Schinner and Breckner, proprietors of the principal reducing-works, took off on Saturday, Dec. 12, 164 lbs. troy of silver bullion coin, value \$2648.80. The amount of ore reduced to secure this amount of bullion was 2000 lbs. to the ton. Messrs. Hupenden, Wolters, and Co. have just taken from ore, and shipped to New York, \$4454.45 in silver bullion from 21 tons of ore. Their mode of treating ore is by chloridising cylinders and amalgamation. This method is working very successfully on the sulphuretted ores found in this locality. Prof. Stewart produced 2615 osts. of silver bullion in his small way of working, by a three-stamp mill, during the month of November. "If such results (says the Colorado Miner) could be obtained from the Comstock lode, Nevada, millions of capital would be eager to invest; but being situated in Colorado, where millions have been expended by inexperienced people in mining and worthless processes, capitalists are not so ready to invest." The character of ores in this district is principally argentiferous galena, although many of the lodes carry silver glance (vitreous sulphide of silver), stannite (brittle sulphide of silver), pyrrhotite (ruby silver), and chloride or horn silver. The principal lodes in this district are the Equator, Cascade, Terrible, South American (carrying stannite, galena, and zinc blende), Wall Street, Achilles, Aster, D. W. Yandall (carrying black and grey sulphurets of silver), U. S. Coin, Cataract, &c. These mines are capable of producing immense quantities of ore, and that of a class, too, that will average over \$200 per ton. The miners are anxious to have capacities of works erected here, and offer to parties that will build such works as are required to reduce the class of ores above mentioned to denote to them and deliver at their works from 1000 to 2000 tons of first-class ores. This should really be an inducement to parties that are accustomed to treating ores to at least investigate the matter, and see what merit there is in it. In South Park very little has been done during the past year, although the richest gold mines in Colorado are at that point. The celebrated Orphan Boy lode has been worked by Messrs. Newlin Brothers and Cotes, with great success; they having obtained from \$850 to \$1400 to the cord of ore. This lode, like all lodes in that district, is very large, the pay streak varying in width from 7 to 16 feet. The deepest shaft on the lode is 120 feet. New works are to be erected at this mine the coming spring by Messrs. Jeffers and Co., of Chicago, Illinois, who, by the way, have a well-demonstrated process of treating sulphuretted ores, by the introduction of certain gases into a furnace while the ores are roasting or being desulphurised. Messrs. George Lechner and Co. have been hard at work on a patch called the Ten Forty lode, located about one mile from the Orphan Boy lode. This lode is very peculiar in its formation, being on a flat several hundred feet in width. In this flat many cuts have been made to a depth of from 30 to 45 feet, developing a rich deposit of silver ore, which seems to lie in chambers or floors, found in magnesian limestone of the dolomite species, covered with calc and felpspar. Three cuts or drifts have been run at right angles across the flat, exposing at a depth of 20 ft. four distinct layers or floors, 20 to 30 inches thick, of black and grey sulphurets of silver, thoroughly decomposed, and very rich, the lowest assays being over \$1000 to the ton. Other cuts or drifts are now being run to a depth of 45 feet, and show three other layers. There is now expected nearly 3000 tons of the character of ore above described. The proprietor of this mine is now in New York, seeking capital to erect suitable works for the reduction of these ores. At Central City, the great central point of gold mining operations in Colorado, great excitement has prevailed during the past month, caused by the discovery of a rich silver mine in that district. Robert Teats and Co. are working the ore, and obtaining from 600 to 1000 osts. of silver per day. All the mills in this locality are working full blast, and with good results. The bullion shipped from Central City amounts to from \$250,000 to \$300,000 per month, where two years ago it

would hardly reach \$50,000. Colorado is suffering from the want of experienced furnace-men and capital, especially in the silver districts, where its richest treasures lie.—Chicago. QUILL.

HOW TO INVEST CAPITAL IN MINES.

SIR,—The answer to the important question—How to invest capital in mines, is, doubtless, Not in old and worn-out mines. Every deposit has a limit, and when the centre is passed, the quality or percentage of the ore declines, as well as the quantity invariably; besides, the expenses of working greatly increases below 200 fathoms; this applies more particularly to deposits of copper, and is apparent throughout the world. Some persons judge the value of the mine they frequently select to purchase in by the number of years it has been working at a profit; such is the result of theory only. Many young and promising mines came to grief from the heavy fall of rain during the latter part of 1868 and beginning of 1869; this, coupled with the serious drop in the price of tin and copper, made it necessary to make frequent calls to carry on the works. The great fall of rain during the last six or eight weeks is beginning also to tell seriously on many of our present mines, and but for the seasonable advance in metals would, no doubt, cause the suspension of several deep and struggling mines.

Many suggestions are put forward as to the mode of forming companies to work mines. The remarks of "Cornwallensis" in last week's Journal seem to meet all the requisites for the question. Good mines do not often get into the hands of the Court. Formerly merchants gave more latitude than recently, but in the panic of 1866 merchants put one mine after another into the Court of Stannary, when a little behind in their accounts. The cause of delay in payments was owing to half or two-thirds of the shareholders not responding to the calls made; and when applied to scores, if not hundreds, of persons, whose names appeared in the cost-books, could not be found, or a trace of such persons heard of. Fictitious names and addresses became the order of the day with scores who speculated in mines. By having a paid-up capital to work selected mines to start with is a safe principle, pay cash, and avoid getting into debt, and should the enterprise be found an unprofitable one the sooner it is wound up, in nine cases out of ten, the better. Foreign competition must be met by a reduction in the royalty or dues. There are plenty of good mines to be discovered yet in the county of Cornwall; there is as good fish in the sea as ever came out of it. There never was a more favourable time than the present for forming new companies to work mines legitimately; machinery, &c., is cheap and plentiful, and labour abundant. Jan. 19. A READER OF THE JOURNAL.

CHONTALES GOLD AND SILVER MINING COMPANY.

SIR,—As an original shareholder in this unfortunate concern, I wish to be informed, through your columns, my exact position. My broker states that the serious decline which has taken place in the market value of the ordinary shares is attributable to the fact that the original shareholders have virtually no property at all, by reason of the fact that the debenture bonds, which carry a preferential interest of 12 per cent. per annum, are issued upon the security of the mines, and that as the interest is not to be paid upon these bonds the holders can step in and take possession. I am also informed that a further issue of bonds is imperatively necessary, in order to carry on the works; and that, therefore, at the forthcoming special meeting the shareholders will again be solicited to subscribe more capital.

In view of the very serious falling off in the average yield of the ore from the mines, it becomes a question whether the works will ever be made productive; but, under any circumstances, it appears disappointingly clear that the time has arrived when either the company should be re-formed, or that the claims of the ordinary shareholders, bondholders, and ordinary shareholders should be re-adjusted upon an equitable footing, for it is too evident that the interests of the first two named are, and must continue to be, exceedingly prejudicial to that of the ordinary shareholders, who hitherto have so resignedly found such an enormous amount of capital, with so very little to show for it. Even the estimates of Mr. Belt, which were referred to as "those of a non-sanguine man," have proved lamentably fallacious—at least, as far as the monthly returns of gold are concerned, although too correct as regards the expenditure. As an example, the fact may be cited that the estimated return for November was 800 osts., whereas the actual return was 367 osts., or less than one-half; while the monthly expenditure (exclusive of managerial and other expenses in London) considerably exceeds 2000l. I think, Sir, that, under the circumstances, you will see I have well-founded reasons for being—A DISAPPOINTED SHAREHOLDER. Jan. 11.

ADVERTISING SHARES WITHOUT POSSESSION.

SIR,—I read with much interest the remarks of Mr. Murray on the subject of the "Okel Tor Management," particularly that portion where he says (alluding to the fictitious advertisements of shares for sale in that mine, &c.), "that the same parties have failed in depreciating the value of the shares by advertising them frequently at very low prices, and these shares thus advertised were perfectly worthless, they could not be delivered in any instance, and they were never sold to anybody, as no transfers took place." Now, what I want to know, Mr. Editor, if these are the true facts, is there no law for such practices? If not, the sooner an association of real mining investors is formed the better, to protect themselves from such chances of so great a deterioration in the value of their property, and I for one shall be most happy to join it, to promote such measures that will protect the interests of all like myself. London, Jan. 21. A MINE INVESTOR.

SUBHATHOO AND PATTIALAH MINES, NER SUBHATHOO, HIMALAYAH MOUNTAINS.

(By Mr. P. KELLY, Government Ordnance Survey Office, Calcutta).

These mines are reported to have been wrought in remote times, and evidences are extant of their having been worked on the backs of lodes for ores, which are abundant; and doubtless yielded good returns whilst forest wood abounded; that lead ore was also extracted may be readily supposed, their situations, however, being difficult of approach, and considerable expense as well as practical skill being absolutely necessary; it was impossible for native labour to properly develop these perpendicular lodes. The original discoverers appear to have worked out the bunches of lead where readily procurable, irrespective of any future measures, the lodes being apparently exhausted. These old works, situated in a deep ravine, were known only to a few of the resident natives, by whom the secret (for such it really was) was communicated, for a consideration, to an enterprising and scientific European, who set some coolies to work, and obtained a considerable quantity of superior lead ore at a profit. These efforts were made in the most unscientific manner and with most primitive tools and appliances. This gentleman in his turn communicated his search and views to others, who, after due consideration, determined to subscribe funds for really ascertaining and testing whether the lodes were worth working or not. Having obtained the requisite authority and grants for working, they sent out a properly qualified mining engineer to examine the properties, and to bring out such tools as might be requisite for a preliminary exploration.

In October last Mr. George Henwood came out and undertook the task. On his arrival the place where the ore had been obtained was filled with rubbish and water by the recent rains; these removed, the lode was seen to be small, in very hard rock, indeed so hard as to be impervious except at great time and cost by native adaptations. Mr. Henwood also found the natives had exhausted the lode as far as they could, owing to the impediment of water as well as the hard rock, and had moreover, in ignorance, gone from the lode. Mr. Henwood first proceeded to clear away the debris, so as to ascertain whether the lode was continuous and regular; in doing so, he operated on a lode for 83 ft. north and south, containing lead ore more or less the whole distance, and traced it in the face of a nearly perpendicular cliff 2000 feet high. He next proceeded to drive a gallery on the course of the lode through the hard rock, which he found, as he supposed, to be only an occasional natural obstruction, when the veins again became very productive, and he has continued for 40 feet; at present the end presents most favourable appearances, being 4 feet wide, and full of rich silver lead ore (galena). In order more fully to test the reality of the lode's extent and worth, another gallery was made at a depth of 60 feet below the former, in which, at a pre-indicated point, the lode was wet with.

Upon such premises it was determined to establish a joint stock company, with adequate capital, the whole of which was readily subscribed, principally by British and native noblemen and gentlemen, the affair never having been advertised or "placed" before the public. Active measures are being adopted, proper tools and dressing apparatus, as well as smelting furnaces, have either arrived or are in transit; houses for the European managers, stores, sheds, &c. have been erected; a railway from the mouth of the mine to the dressing floors is nearly completed; in fact, the place presents an appearance of activity quite unusual in these parts of India.

Before these measures were decided on the then executive took ample precautions. The produce of the ore was most carefully tested both in Calcutta and in Europe. The first assay gave 88 per cent. pure lead, no silver; another casual sample, 67 per cent. pure lead, and 12½ osts. silver per ton of ore; next 65 per cent. lead, 12 osts. silver. The manager suggested sending a large sample from the lode without any kind of preparatory "dressing" (which was impossible, there being no dressing apparatus on the works) were sent to the Ballycours Works near Dublin: the yield was 67 per cent. pure lead, and 12 osts. of silver per ton. This was deemed wholly satisfactory and conclusive, active working was decided on, and is being carried out. Splendid specimens of galena in blocks of upwards of 2 cwt. each are lying on the floor of the mine, and many tons of lead ore are ready for being manipulated previous to the smelting process, and many more tons are discovered ready for removal, when the necessary works are more advanced for its preparation. The number of men employed is considerable, and this valuable property is on the estate of his Highness the Maharajah of Pattialah.

The antecedents of the Subhathoo mine are nearly similar; with this difference that Mr. Henwood condemned the lode the natives had wrought on as not being the true lode. After a close examination of the strata, he found a splendid lode 30 feet wide, containing carbonate of lead, sulphide of lead, carbonate and sulphurets of copper, carbonate and oxide of iron, as well as a substance well known to miners as "gossan" in large quantities. The same mode of ascertaining its value was adopted—the sending a large sample to Europe; the result was from the undressed ore 57 per cent. lead, and 4½ osts. silver. This gratifying yield was from ore taken not 3 feet from the surface, a circumstance without parallel, another assay from this ore made by a celebrated authority in Calcutta gave—dressed ore, 68 per cent. of pure lead, and 10 osts. of silver per ton.

Now, as these mines can be wrought at nearly opposite plans to British mines, we think the proprietors have every reason to look forward to a remunerative return. Galleries will be driven into the hill instead of shafts being sunk to get at the mineral, no machinery whatever will be required except for dressing apparatus, and for this water power to any extent is available, wood and charcoal as cheap as in England, and labour only 4½d. to 6d. per day, as against 2s. 6d. to 3s. 6d. in the British Islands, whilst pig-lead in India is 30l. per ton, against 19l. to 20l. at home. We hail the working of these mines as a step in the right direction, and we

that will probably be the means of doing much good in developing the vast resources of mineral wealth supposed to exist in the Himalayas. Since Mr. Henderson has been out he has made an exploratory expedition across the mountains northward as far as the Hamta pass. He states that many of the mountains contain copper, lead, and silver, and that at Sultanpoor, on the river Beas, huge veins of quartz exist, which he conceives to be auriferous (the fact of the natives working the bed of the river Beas below this point for gold seems to bear out the supposition). These reefs of quartz are nearly at the junction of the clay-slate with the gneiss rock, and is deemed a most favourable situation in a geological point of view. We hope success may attend the endeavours of our enterprising friends, and that we may at some future period have to chronicle the same to our numerous readers.—Indian Daily News.

Meetings of Public Companies.

EAST DEL REY MINING COMPANY.

A special general meeting of shareholders was held at the London Tavern, yesterday, for the purpose of either appointing another liquidator in the winding-up of the affairs of the company, in the place of Mr. John Phillips, deceased, or of authorising Mr. Fred. W. Smith, the surviving liquidator, to continue the winding-up of the affairs of the company alone, and as sole liquidator.

Mr. FRED. W. SMITH in the chair.

The CHAIRMAN stated that, as the shareholders would see from the notice, he had called them together to-day to consider the course to be adopted on the untimely death of his friend and colleague, Mr. John Phillips. At the shareholders had so recently met together to receive the statement of the liquidators, and the accounts and balance-sheet, he would not now occupy their time by a recapitulation of all that he said on that occasion. For the information, however, of any gentleman who might not have been present at that meeting, he would just mention that since the first meeting of the purchase-money had been received the liquidation of the claims on the company was being rapidly proceeded with, until stopped by the sudden death of Mr. Phillips, and the object of the present meeting was, as before stated, to enable him (the Chairman) to continue the liquidation, or to elect another gentleman in conjunction with him, to act in Mr. Phillips's place. He had been asked to explain the item in the balance-sheet under the head of balance due to vendors. The facts were, that this sum of money was due to the children of one of the original owners of the Sao Vicente estates; but though the East del Rey Company had always been ready to pay this claim, they had been unable to do so, as the claimants were abroad, and there was great difficulty in finding them. He was happy to state, however, that this matter had now been arranged by the purchasers of the estate taking over the debt as well as the property, and that as it was not improbable that the parties might not come forward for a year or two years, or perhaps for a longer period, the rate of exchange had been taken at a somewhat lower figure than the current rate, to make up for the interest accruing on the money. This course had been adopted (with the entire approval of the legal adviser), to enable the liquidators to bring the affairs of the company to a close, which, otherwise, would have been kept open for an indefinite period. The only other matter he had to mention was the reason they did not divide what money they had in hand. The reason was simply this, that, in the first place, the amount to be divided after paying off claims already sent in, and retaining sufficient to meet those expected, would be very small; and, secondly, they were advised that it would be better to wait for the expiration of the time for sending in claims before dividing anything. He would now simply leave the business of the meeting in the hands of the shareholders, and would put any proposition that they might see fit to make.

The Rev. A. H. New asked what was the amount of cash in hand, including the sum which appeared in the balance-sheet?—The CHAIRMAN explained that many creditors had been paid, but that he thought at the present time the amount was about 3000l. in hand. He was speaking from memory, as he had handed to Mr. Phillips, the day before his death, all the accounts, and of course he had not been able to trouble his widow so soon to look for these papers.

A SHAREHOLDER: Gentlemen,—At the commencement of the liquidation of this company there was, no doubt, considerable responsibility attached to the office of liquidator. I consider the shareholders were very fortunate in securing the services of two gentlemen so capable of looking after their interests—Mr. Phillips, from his great knowledge of all mining matters; and Mr. Smith, who was so well acquainted with all the affairs of the company. The negotiations for the sale of the estate having been completed, and there being little else to do but to divide the money, he thought that the appointment of another liquidator was unnecessary; and, having himself every confidence in Mr. Smith, he would simply test the feeling of the meeting by proposing "that Mr. Frederick William Smith, the liquidator appointed in conjunction with Mr. John Phillips, since deceased, for the purpose of winding-up this company, be, and is thereby, authorised to continue such winding-up alone, and as sole liquidator."

The Rev. A. H. New: I have evidently every matter connected with the company at his fingers' ends, and I think we cannot do better than leave the matter in his hands.—The CHAIRMAN then put the resolution, which was carried unanimously.

The CHAIRMAN: Well, gentlemen, I am much obliged to you for this renewed proof of your confidence, and I can only say that my utmost endeavours shall be used to make as large and as speedy a distribution as possible. The proceedings then terminated.

TAQUARIL GOLD MINING COMPANY.

An extraordinary general meeting of shareholders was held at the London Tavern, Bishopsgate, on Tuesday, for the purpose of confirming the resignation of all or some of the recent directors of the company, and for confirming the appointment of the present directors, and also for the purpose of passing special resolutions for cancelling, altering, and varying some of the regulations contained in the Articles of Association.—Mr. HENRY HAYMEN in the chair.

Mr. FRED. R. BLUETT (the secretary) read the notice convening the meeting.

The CHAIRMAN said the board had been requested to call this meeting from the fact that there was some little discrepancy or doubt in the Articles of Association with regard to the confirmation of the appointment of those directors who had been recently elected to the board. He need hardly say that it was not with a wish to throw any slight whatever upon the old directors that this meeting had been convened; the sole object in view was to ensure the strict legality of the whole of their proceedings—a desideratum in all companies, and more particularly when satisfactory results were about to be realised. (Hear, hear.) As to the proposed alterations in the Articles of Association, they were really requisite, but as they would form the subject of special resolutions he would defer his remarks upon them until they were more immediately before the meeting. As to the intelligence just received from the mine, it afforded him much pleasure to be able to congratulate the shareholders upon its very satisfactory and encouraging character; but he should tell them that it had been received by some people prior to its receipt by the board. This, however, was but the old tale repeated, and which he (as Chairman) took upon himself to condemn in a circular he addressed to the shareholders immediately he consented to accept the chairmanship of the company; and all he could say was that as soon as Capt. T. Treloar had taken charge of the property, and had placed it in a business-like working condition, which he, no doubt, would quickly do, the monthly advices from the mine would be regularly forwarded to the shareholders, in the same way as was done at the present time with the other companies with which he was connected. Having read the advices just received (which appear in another column), he stated that as this was the first time he had had the pleasure of addressing the shareholders, it might not be without interest if he were to afford them some little information as to the present state of the capital account. There were 100,000 shares, of which 24,000 were credited as 10s. paid, 36,000 had 7s. 6d. paid, and the remaining 40,000, allotted at 5s. per share, subject to the payment of a further 2s. 6d. So that, if at the present time they were able to judge from the various reports as to the resources of the property, the capital account would be closed with not more than 50,000l.; and if the returns in any way equalled those of other mines working in a proper and legitimate manner—and in saying this he was setting aside altogether the extraordinary statements that had laid before him, but which he did not think it right to lay before the shareholders, because they would most certainly be looked upon as exaggerated—but if, as he had said, the returns in any way equalled those of other mines, the shareholders would at a very early date receive very good results from working this property. (Hear, hear.) The only difficulty in working mines in Brazil had been the labour question, but now, happily, they could, he believed, congratulate themselves upon the termination of that difficulty by the practical conclusion of the war with Paraguay. Having, however, felt the very great importance of this question, he (the Chairman) had addressed a letter to the Brazilian Ambassador, pointing out the difficulties under which Brazilian mines were placed as compared with those of other countries by the abstraction of labour for military purposes. With those few remarks, he would ask the secretary to read the proposed resolutions, with reference to the confirmation of the appointment of the present directors.—The SECRETARY read the resolution.

Mr. FLETCHER took exception to the term that the old directors were "removed," and suggested that the word "resigned" should be substituted.

Mr. WYLD (a director) explained that the wording was founded upon the Article. He confessed he did not like the language, and as a legal man he had carefully perused the Articles to see whether any other word could be employed, but he found that the word "removed" was the only word that could be used to make the matter quite legal.—Mr. FLETCHER expressed himself quite satisfied with the explanation.

A SHAREHOLDER asked if any steps had been taken to get a settlement and quotation upon the Stock Exchange?—The CHAIRMAN had no doubt that a settlement and also a quotation would be obtained. He would now move that the resolution just read be adopted.

Mr. FLETCHER, as one of the directors, had much pleasure in seconding the proposition; and, having occupied that position it might be satisfactory if he were to make a few remarks in the resolution now before the meeting, because prima facie it might appear somewhat singular that five gentlemen members of one board should be succeeded by five others. The fact was the company was formed two years since, but the then directors thought they would not commence operations until 60,000 shares, including the vendors', were subscribed for. At different times many satisfactory reports were received as to the value and condition of the mine, but they declined to commence operations until that number of shares had been subscribed for. As no more shares were taken, the directors saw that practically 15s. out of the 20s. per share might have to be called up, which would not be satisfactory to the shareholders. At this stage of events, some intimation was conveyed to the directors that Mr. Henry Haymen might be disposed to accept the chairmanship. Accordingly, Mr. Haymen attended a board meeting, stated his views, and informed the directors that he and friends would subscribe for 40,000 of the share capital, but he said, very naturally, if he was to be the Chairman he should like to have his own friends upon the board. Knowing that Mr. Haymen and his directors

possessed considerable mining knowledge, and that they would have a large interest in the company, he (Mr. Fletcher) and his coadjutors upon the board resigned and elected Mr. Haymen and his friends upon the board. (Hear, hear.) This, he should mention, was before the news came from Dr. Birt that gold had been found. The news would, of course, have had its effect, but when he told them that the 40,000 shares were subscribed for in two days, he thought the shareholders would agree with him that the old directors had done right. (Hear.)

The CHAIRMAN said he hoped the time would come that whenever a vacancy occurred at the board the present directors would have the pleasure of having among them Mr. Fletcher. (Hear, hear.) He did not hesitate to say that no gentleman occupying the position of Chairman of a board of directors could have made a sacrifice for the benefit of the undertaking with which he was connected in a manner more praiseworthy than did Mr. Fletcher. He should not be doing justice to Mr. Fletcher if he did not make that statement. (Hear, hear.) The resolution was then put and carried unanimously.

The SECRETARY then read the resolutions referring to the proposed alterations in the Articles of Association.—The CHAIRMAN explained that they were purely technical, although really necessary for the working of the company. Mr. ROSS MANGLES seconded the proposition.

The CHAIRMAN added that another special meeting would be required for the confirmation of those resolutions; they would be printed, and forwarded to each shareholder.—The motion was put and carried unanimously.

Mr. G. BATTERS asked if the Chairman had received Capt. Thomas Treloar's report upon the mine, because there must have been some very strong motive to induce their present Chairman to have accepted that position?—The CHAIRMAN said the only answer he had to make was, that if he had not believed Taquaril to be a good mine he should not have joined the company. Without referring to what Capt. Thomas Treloar had intimated to him about the property, he would inform them that as soon as the report of Capt. Thomas Treloar was received a copy would be forwarded to each shareholder.

Mr. ALLEYNE proposed that the best thanks of the shareholders be accorded to the late Chairman and directors, for the laudable manner in which they had resigned their positions for the benefit of the company, for by that step they had secured the ability and knowledge of a Chairman and directors who had achieved an almost unrivalled success. The proposition being duly seconded, was put, and carried unanimously.

Mr. FLETCHER, on behalf of his late coadjutors and himself, returned their sincere thanks for the acknowledged appreciation of their services. All he could say was that they were amply rewarded by finding that the enterprise was now so fully and fairly started under such auspices. He had great pleasure in proposing the thanks of the meeting to Mr. Haymen and the present board of directors for the way in which they had come forward to take the management of this concern.

The proposition was duly seconded, put, and carried unanimously. The CHAIRMAN having duly acknowledged the vote on behalf of his colleagues and himself, expressed a hope that the time was not far distant when they would be in position to offer the shareholders some substantial results. (Hear, hear.) The proceedings then terminated.

GREAT NORTHERN COPPER MINING COMPANY OF SOUTH AUSTRALIA.

The annual meeting of shareholders was held at the London Tavern, Bishopsgate, on Monday, to receive the directors' report, and to take into consideration the state of affairs of the company.

Mr. J. WILSON (manager) proposed that Mr. Wallace J. Harding, barrister-at-law, should take the chair, which was seconded by Mr. BROMFIELD. Mr. PATTON would like to know when Mr. Harding first joined the company, and how long he had been in the office. Mr. Harding replied that he had been on the board they elected Mr. Harding, subject, as stated in their report, to the confirmation of the present meeting.

Dr. PEARL asked when Mr. Harding first became a shareholder?—Mr. HARDING: On July 27.

Mr. BROMFIELD urged that the confirmation of the appointment of a director to a vacant seat at the board was not necessary according to the Articles. Instead of the position of director being something to be desired, he should have thought the shareholders ought to be obliged to any gentleman who would undertake the trouble and responsibility.

Dr. PEARL: What a compliment to Mr. Harding. After some further discussion, during which the solicitor ruled that Mr. Wilson was the only proper Chairman upon the present occasion, it was agreed that Mr. WILSON should take the chair.

The notice convening the meeting was read.

The report of the directors stated that as yet no profitable discovery had been made at the mines. Soon after the death of the late manager, Mr. Hancock, they sent out instructions to the superintendent, the Hon. C. Bonney, to suspend operations at the mine until the sense of the shareholders had been ascertained at a public meeting. Those instructions were anticipated two or three weeks by Mr. Bonney. All workings are, therefore, in abeyance for the present. The majority of the board consider that as the current expenses of the company will be very small indeed, it is desirable to retain possession of the various properties, under the impression that the construction of a railway to the district in which the mines lie, and the natural tendency to increased enterprise after the long drought, would both materially enhance the value of the mine. One, the Oratunga, has never been tested, and the Nucleana only to a very shallow depth; and it has been proposed to suspend operations until the value of the mines is ascertained either for sale or future development. The Billman, worked by the Yudanamutana Mining Company, which is in the immediate neighbourhood, is now proved to be of very great value.

The CHAIRMAN, having referred to the death of Mr. Hancock, and to the protracted illness of Mr. T. G. Taylor, stated that he had been placed in a very awkward position; and he mentioned that as only 300l. of the 1100l. arrears of call had been recovered, the directors had been, unfortunately, compelled to return four bills to the colony unpaid. He could not help saying that those of the shareholders who had paid their calls had great cause to complain of the defaulters. As those bills had been returned, and as Mr. Bonney was to some extent personally responsible for their payment, shareholders must not be surprised if they learnt by the next mail that the whole of the company's property had been sold up. The directors of the company had proposed the entire suspension of operations, with which he (the Chairman) did not concur, for he could not conscientiously recommend the shareholders to continue the company.

Mr. BROMFIELD said he was one of the largest shareholders in the company, and that most of the 750 shares he held as an original allottee. He had had a long acquaintance with the affairs of the company, and his interest being so large had induced him to visit Mr. Taylor at his private house. Mr. Taylor, as a very large shareholder, and one who knew more of the affairs of the company than anyone else, had been of opinion that there was yet vitality in this concern. Considering that there were very large arrears of calls, that the Oratunga Mine had never been tested, and that the company could be continued for one year at an expense of not more than 1/4d. per share, exclusive of the mining expenses in the colony, Mr. Taylor thought, and he (Mr. Bromfield) agreed in the opinion, there were good reasons why the company should not be allowed to collapse. In addition to these considerations, copper was advancing in value, and the railway was in process of construction, both of which would increase the value of the property. Those instructions of the directors to suspend operations, therefore, let them simply do nothing, but wait for the improvement, which most assuredly would come.

A SHAREHOLDER, who described himself as a larger proprietor than the last speaker, considered that any scheme for carrying on this concern would be abortive, while at the same time it was opposed to common sense; therefore, his opinion was that the concern should be wound-up in the least possible time.

A resolution was then made to the effect that the company be wound-up voluntarily, upon which Mr. HANCOCK proposed an amendment that the report of the directors be received and adopted, and that the company be continued till the next meeting.—Mr. BROMFIELD seconded the amendment.

The amendment was put and lost, and the proposition for winding-up the company was put and carried. The meeting then separated.

THE PORT PHILLIP AND COLONIAL GOLD MINING COMPANY (LIMITED, AND REDUCED).

An ordinary general meeting of shareholders was held at the City Terminus Hotel, Cannon-street, on Thursday, to receive the directors' report and the accounts, to declare a dividend, re-elect retiring officers, determine remuneration of directors for the past year, and to transact such other business as might be necessary.

Mr. HENRY MOOR in the chair.

Mr. C. H. FIELDER (the secretary) read the notice convening the meeting. The report of the directors (which appeared in last week's Journal) was taken as read.

The CHAIRMAN said he did not propose to detain the meeting with any lengthened remarks, because the report was sufficiently exhaustive, containing as it did the whole of the information in possession of the directors. As to the alteration in the accounts from their former shape, he might mention that it had been made partly at the suggestion of one of the auditors—Mr. Tietkens. In 1857 there was written off for losses the sum of 63,972l.—losses, he might add, incurred before any of the gentlemen at present on the board were connected with the direction. Subsequently a small sum, comparatively, was written off that item of 63,972l., by which it was reduced to 62,600l., making the capital appear from the accounts of 1860 until last year at 35,000l. To-day they find that the capital was represented at 97,500l. The directors, in agreeing with Mr. Tietkens's suggestion, thought it only right and proper that those shareholders who had but recently joined the company, or those who might join it at any future time, should have no ground of complaint afterwards, but that they should be informed of the fact that the amount he had referred to was expended in the formation of the company, in prospecting, and in the construction of works which were afterwards abandoned, and in the purchase and construction of the present properties of the company. The reserve fund during the last year had been increased by the sum of 2500l., which was invested in Three per Cent.; and as to the reconstruction of the company, and the reduction of the liability, he was glad to be in a position to state that by the end of next month the directors had little doubt but that the whole of the business would be finished, and the assent of the Court of Chancery obtained, whereby the company's capital would be reduced from 6l. to 2l. per share, leaving a liability of 1l. per share. As to the property itself, the directors believed that everything was going on perfectly satisfactorily. Mr. Munday, in his annual report, states that during the past year "the progress of the drives and stopes has in several parts of the mine above the 444 feet level opened up quantities of good mineral, which were not anticipated, especially on the east and Robinson's veins, the result of which is that, although a great deal of good ground has been taken out and stamped, the estimated payable reserve ground is eight at the end of the year remains at an important figure, and has not diminished below the estimate of last year. The northern part of the west vein, between the 374 and 444 feet levels, is not included in this estimate, it being below a paying average. During the present year it is expected that great progress will be made in opening out on the veins at the 517 and 590 feet levels, as the cross-outs from the north shaft at those levels have already considerably advanced towards the east and west,

for the purpose of intersecting them. The proceedings of the present year will also prove interesting, as showing the state of the veins at a deeper level than they have yet been worked in this company's ground." And Mr. Bland says, "I think we may congratulate ourselves upon the result of the past year's work; the quartz raised has been ample for the supply of the stamps, and the yield throughout the year unusually even. What the current year may turn out it is difficult to foresee until the lower workings are more opened upon. There are several stopes being worked that will yield well, and these will last some time; and before they are worked out it is hoped that others will be ready to take their place." As to the machinery, it is reported to be in good working order, and Mr. Bland says that "the Birch's Creek plant has supplied us well during the year with clear water, and is in a good state of repair. It should be borne in mind that these works were only temporarily erected until others of a more serviceable and substantial character should be constructed by the Government or the Municipality of Clunes. With reference to the subject of the supply of water, Mr. Bland had intimated to the board that the projected construction of water-works by the Government, for supplying the mines in the locality of Clunes with water, had been abandoned, and that the Municipality for the borough had been trying their hands, but Mr. Bland was inclined to think the scheme would fall for want of funds. It had become a question with the board as to whether this company, in conjunction with others, should not undertake the work of providing the locality with a permanent supply of water. Of course, the question would arise as to how this company could meet the requisite expenditure. Mr. Bland had submitted a proposal, to the effect that out of each month's profit a certain sum should be appropriated to that purpose, but he (the Chairman) thought the opinion of the board was rather against taking anything from the revenue, as thereby the dividends would be diminished. There were two or three modes by which the directors considered the necessary capital could be raised; for instance, there were 2500 unused shares, which might be issued at a premium; and then there was the Collins-street property, which had not yet been sold. He had not referred to this subject to elicit the opinion of shareholders upon the present occasion, because the directors had not come to a decision upon the subject, his (the Chairman's) object being to apprise the shareholders as to what might be expected during the present year. As to additional stamping-power, the directors in their last letters wrote to Mr. Bland for his opinion as to the desirability of increasing the number of stamp-heads, possessing as they did sufficient engine-power to work them, and thereby increase the revenue, and at the same time the dividends. Mr. Munday, their assistant superintendent, had reported that other parts of the mine which had the time had arrived when additional crushing-power should be provided; and, as he had already said, the more particularly, as there was sufficient steam-power for that purpose. During the coming year the directors would have to call the shareholders together with regard to the alterations in the Deed. It was not considered advisable during the proceedings in connection with the reconstruction of the company and the reduction of the capital to enumerate them with other questions arising upon the Deed itself. As soon as the reduction of the capital had been fully ratified by the Court of Chancery it was the intention of the board to go through the Deed, and suggest such alterations as they deemed necessary, prominently regarding the reserve fund and manner of voting. The report alluded to the great foresight and ability displayed by Mr. Bland, and they felt that the shareholders would most cordially join with them in expressing their sense of the services Mr. Bland had rendered the company during the past year. (Hear, hear.) The several heads of departments had also given great satisfaction. As to the proposed dividend, the shareholders had already received 3s. per share during the year, and they now recommended a further distribution of 1s. 6d. (free of income tax), payable on Monday, Feb. 1 next, making 4s. 6d. per share, equal to 22 1/2 per cent. per annum upon the paid-up capital. All he, in conclusion, could say was that the general position and prospects of the company's affairs must be considered as very encouraging, and the board saw no reason whatever to apprehend that any falling off would take place during the current year. He then moved that the report and accounts be received and adopted.—Mr. THOMPSON seconded the proposition.

The motion was put and carried unanimously, and the distribution of 1s. 6d. per share was agreed to.—The retiring directors were re-elected, and Mr. W. S. Sutton was appointed the shareholders' auditor.

Upon the proposition of Mr. SUTTON, seconded by Mr. MOLYNEUX, the sum of 800l. was voted to the directors as remuneration for their services during the past year.

The CHAIRMAN thought it right to mention that the directors had voted Mr. Bland the sum of 200l., as an acknowledgement of the services he had rendered the company for many years, and particularly in obtaining the necessary assents of the lessors and other parties to the reduction of the capital, and the reconstruction of the company.

Mr. MOLYNEUX proposed that a cordial vote of thanks be passed to Mr. Bland, as well as to the several heads of departments, for their able and efficient management of the company's affairs in the colony.—Mr. SUTTON having seconded the proposition, it was put and carried unanimously.

A vote of thanks to the Chairman and directors concluded the proceedings.

PENHALLS MINING COMPANY.

The quarterly meeting of adventurers was held at 22, Austinfriars, on Tuesday, Mr. WILLIAM GOLETT in the chair.

The SECRETARY read the notice convening the meeting, and the minutes of the last were confirmed.

The financial statement showed that 49 tons of tin had been sold in the quarter, producing 3113l. 7s. 5d., giving a profit of 911l. 10s. 3d. This, with the former balance of 200l. 9s. 11d., made 1112l. 0s. 2d., everything being charged close up.

Captain SAMUEL BENNETTS (the manager) informed the meeting that the general prospects of the mine were highly satisfactory; they had a large number of lodes and rich branches of tin, the ground was easy of development, and no mine in Cornwall could equal Penhalls in the average produce of the tin-stuff, which sometimes had been up to 120 lbs. of tin to the ton of tinstone. The Pink Mine was proving a rich shallow mine, and in the coming summer he considered the returns would be double from this part of the set.

The CHAIRMAN had much pleasure in meeting his co-adventurers, and to place before them such a satisfactory state of things. The mine was in a sound, dividend position, the accounts well charged up, and the committee considered out of the balance of profit (1100l.) they could recommend a dividend of 625l., being at the rate of 2s. 6d. per share.

Col. CLARKE called attention to the fact that the first sale for the quarter, on Nov. 21, the tin sold for 59l. 12s. 6d. per ton, and the sale on Jan. 16, 65l. 17s. The last sale was before the rise of 4l., therefore the estimated quantity, 49 tons for the coming quarter, will give 1200l. profit, or 400l. per month, in place of 900l.

The SECRETARY stated he had no doubt they would in three months after paying the present dividend have an increased profit to deal with. The mine is in every respect well supplied with good and powerful machinery.

A dividend of 2s. 6d. per share was declared. Mr. CHESTON said: "I believe I am the largest shareholder. In 1866 I consulted Mr. King on the subject of relinquishing my interest, and only acting on his advice and his confidence in the mine, I continued by holding. I need not say the result to me and my co-adventurers is highly satisfactory. I, therefore, shall propose—" That the best thanks of the meeting be given to Mr. Edward King, the secretary, and a piece of plate, of the value of 100 guineas, be presented to him as a testimonial for his very skillful and judicious management of the mine, and his unremitting attention to the interest of the shareholders, which have greatly contributed to bringing the mine into a dividend-paying state, with every prospect of further productivity."—This resolution was unanimously carried by shareholders representing upwards of 3800 shares.

Mr. GOLETT said he had very much pleasure in seconding that resolution, and could fully endorse those sentiments.

Mr. KING thanked Mr. Cheston and the shareholders present for the very kind expression of feeling conveyed in the resolution just passed, and he was sincerely obliged to them for their great confidence. On examining the books he found in May, 1866, the mine is debt 1450l.; they had since expended in extra machinery 2450l., making 3900l.; and the only cash on hand 3s. per share, or 500l. Now this debt had been paid, and they had 1100l. to the good in the profit having been 4000l.; it was, he considered, only the first step to a prosperous future. The Chairman had the best of information in respect of the price of tin. Higher prices must rule. The trade of the country was improving, the demand for tin was great and the quantity of tin less. The "bears" in the metal trade had up to October, 1868, ruled the market, and kept down the price, but now things were different, and they must prepare to meet the losses from selling large quantities of tin for time on.

A vote of thanks to the Chairman terminated the proceedings.

THE NORTH STAR GOLD MINES, CALIFORNIA, U.S.

Investments in mining properties being almost invariably made upon the strength of the reports obtained upon it, for it is only in very exceptional cases that the investor has any personal knowledge of the property in which he embarks his capital, and it is certainly impossible for him to make any useful enquiries after the issue of a prospectus. Under these circumstances, it is always the first object of promoters to obtain reports from the best authorities, having for the time being the confidence of the public; but it is seldom that a prospectus is introduced like that of the North Star Gold Mining Company, with so many well-known names to the reports in recommendation of it; the names of such men as Mr. David Forbes, F.R.S., Mr. J. A. Phillips, Mr. John Petherick, and Prof. Silliman connected with a single prospectus is a most unusual occurrence, and it is seldom that such unqualified commendation is given—thus, Mr. David Forbes "cannot but feel convinced of the very great value of this mineral property, and also that, under anything like judicious management, it cannot fail to prove a remunerative investment;" and if Mr. Forbes can afford to stake his reputation upon a property he has never seen, surely the public can equally well afford to stake their capital, in the full hope of securing a fair return for their confidence.

The facilities which Mr. Forbes has had for acquiring a knowledge of the position and prospects of the property appear to be of an unusual kind, owing to a relative of his residing with the owners, and reaching the mine in October, unknown to the English representatives of the vendors. Mr. Forbes wrote to his brother-in-law, Mr. Melville Attwood, of San Francisco, requesting him to inspect the North Star Mines on his account, and to telegraph to him the result, Mr. Attwood having his full confidence as a mining engineer of great practical experience, who has been more than 17 years connected with gold mining in California, and especially with the Grass Valley Mines. His telegram, received Nov. 11, in reply, was:—"Just made examination—North Star—find it much better in every respect than when last examined by Phillips and self; ore rich, reserves large;" and on Dec. 15 he had a letter from him fully confirming same, praising the new machinery just erected, and concluding with—"I think the returns from the North Star Mine will be such as to restore confidence in the London market for Californian mining." Subsequently, in answer to a telegram from Mr. Forbes, requesting him to ascertain the actual amount of gold returned during the last month's working, a telegram was received from Mr. Attwood on Dec. 16, stating that the gold produced from Nov. 5 to Nov. 22 had been cleared up on Dec. 7, and exceeded in value 8000l. Accepting these

statements as thoroughly independent testimony, and remembering that the new machinery (above 12,000 ft. in value) is considered to be ample for working the mine to a depth of 2000 feet from the surface, he feels justified in expressing the conviction already referred to.

The property to be worked is freehold, and exempt from all royalties, and having been in full and successful operation for some years, no difficulty should be experienced in obtaining the most minute details as to its position and prospects, more especially as the mine has been opened out to a depth of 900 feet, and 300,000 worth of gold has been obtained from the crushing and amalgamating of some 50,000 tons of quartz; and it is estimated that the amount of stopping ground actually proved and available for immediate extraction is considered sufficient to supply 25 heads of stamps for the next ten years, which, taking the quartz at a value of only 6s. per ton, should yield a net profit of 60,000l. per annum. Now, as the capital of the company is only 225,000l., divided into shares of 10l. each, it is obvious that this amount would suffice for the payment of dividends of nearly 30 per cent. per annum upon the nominal capital of the company; and there is the further advantage that this estimate does not include the returns derivable from the large extent of virgin ground at the other parts of the lodes as yet untouched, amongst which are the recent important discoveries on the Rush and Layton Lodes; nor from the development of the mine below its present depth (900 feet), for which provision has already been made by the recent erection of powerful machinery, amply sufficient for working the mine to 2000 feet below the surface, if required.

FOREIGN MINING AND METALLURGY.

In consequence of the exceptional mildness of the winter the Parisian coal trade has found it extremely difficult to dispose of the considerable stocks which it had accumulated. Should colder weather prevail a sensible improvement would, no doubt, soon be witnessed in the demand. It is understood that the Northern of France Railway Company has given an order for 10,000 tons of rails to the Anzin Forges Company, at terms ranging between 7l. 16s. and 7l. 18s. per ton. The company attempted previously a public adjudication for the delivery in question, but it appears that the results of the adjudication were of a negative character. It seems, at the same time, that the Northern of France Company present a real and solid importance, and that contracts still remain to be let for as considerable a quantity of rails as have been let to the Anzin Company. The other French railway companies have also important requirements to satisfy, which are expected to be reflected shortly in important orders. In the Moselle group pig preserves a regular market, and prices display a firmer tendency. M. d'Adelward has applied for a mineral concession in the Ferrière district, a circumstance which is supposed to imply an intention to construct at least one furnace. M. Dreyfus and Dreyfus have just lighted a great furnace; these gentlemen appear disposed to transform one of their St. Paul furnaces into an English furnace of great height. It is understood that the house of Hayage has just received a new order for pipes, of 24 in. diameter, for the City of Paris. An important order for gas-pipes has also been secured by the Marquis Works for the town of St. Quentin, at 6s. 8d. per ton at the works. The state of the blast-furnaces is still stated to be unsatisfactory in some of the metallurgical districts of France, complaints being still heard occasionally as to English competition.

The Belgian coal markets have continued quiet, although slightly colder weather has somewhat revived the demand for coal for domestic purposes, quantities which had been of late the most neglected. Coalowners are hoping for some old-fashioned wintry weather, as the state of the collieries may otherwise become serious. In the basin of the Couchant de Mons, several collieries have found themselves under the necessity of reducing their extraction; the stock of old coal is still considerable in this basin. Prices are maintained with difficulty. Nevertheless, hopes are entertained that it will be practicable to resist anything like a downward movement. Three important facts have particularly preoccupied Belgian metallurgical industry during the last few days. The first is a contract for 35,000 tons of rails for Hungarian railways, which has now been definitively concluded. The second is the appearance of a new contract for 50,000 tons, a part of which (20,000 tons) will be immediately required for the Eastern of Hungary Railway; this contract has not yet been concluded. The third is an adjudication of 9500 tons of iron rails for the Belgian State Railways. The characteristics of this adjudication, which comprised ten lots, was the high rate of the tenders. Thus, the first lot was let to the house of De Doriolot, at 7l. 16s. 3d. per ton; the second to the Marcelline and Couillet Company, at 7l. 16s. 4d. per ton; the third to M. Blondiaux and Co., of Thy-le-Château, at 7l. 17s. 6d.; the fourth to the Montigny-sur-Sambre Company, at 7l. 17s. 10d. per ton; the fifth to the Cockerill Company, at Seraing, at 7l. 18s. 3d. per ton; the sixth to the Marcelline and Couillet Company, at 7l. 18s. 6d. per ton; the seventh to M. Blondiaux and Co., at 7l. 19s. 4d. per ton; the eighth to M. de Doriolot, at 7l. 19s. 9d. per ton; the ninth to the Montegn-sur-Sambre Company, at 7l. 19s. 11d. per ton; and the tenth to the Sclessin Company, at 8l. per ton. This exceptional advance in prices arises from the severity of the new conditions in respect to guarantee, &c., imposed by the Administration. It is urged in some quarters that the chief of the Belgian Department of Public Works, in his zeal and enthusiasm for steel rails, has indulged in too much severity as regards iron rails, and the precautions which which he has deemed it necessary to surround himself with, it seems to be thought, render probable the adoption of similar measures abroad. The tenders have been received for old rails to be taken from the Belgian State Railways. Out of five lots, four were let on the following conditions:—One to M. Blondiaux, of Thy-le-Château, at 4l. 10s. 10d. per ton; another to the Marcelline and Couillet Company, at 4l. 9s. 2d. per ton; another to M. Ritter, of Antwerp, at 4l. 8s. 5d. per ton; and another to the Cockerill Company, at 4l. 6s. 11d. per ton. The fifth lot was not let. The tenders sent in were, it may be observed, a good deal remarked upon. A New York house presented a tender for one of the preceding lots at 4l. 2s. 6d. per ton for 15,000 tons of rails for Russian railways has been concluded by the Sclessin, Chatellenua, and Couillet Works, acting together; the terms have not transpired, but it is understood that the contract is to be executed before the close of September, 1869. An order for 60 locomotives—18 passenger engines and 42 goods engines—is about to be given out for the Smolensk Railway. Contracts are also about to be let for Hungarian railways for nine large turn-tables and four smaller ones, besides six reservoirs and twelve apparatus for supplying water at stations. A contract has been let at Florence for 8000 tons of rails; the contract has been let by MM. Vitale, Picard, and Co., who are contractors for the Victor Emmanuel Railway, and it has been let to MM. de Doriolot, at 4l. 8s. 9d. per ton, at Antwerp, payable in money at four months, deliveries to be made in the first half of 1869. A contract for 22 locomotives has been given to Messrs. Neilson, of Glasgow, at 2320l. per locomotive, delivered on rails at the port of debarkation. The Cockerill Company (Seraing) is stated to have made a proposition to the Belgian Government to furnish it with iron rails for its railways, and to maintain the plant in a good state for ten years, payment to be made by ten annuities. It is not, however, known whether this proposition has been taken or not into official consideration.

The Havre copper market has been firm, affairs are active, and prices are maintained, in consequence of the smallness of the deliveries announced from the southern seas. The last quotations are 7l. 12s. 5d. to 7l. 12s. 10d. per ton, Paris conditions, for disposable; 7l. 12s. 10d. to 7l. 13s. 6d. per ton for deliveries to be made in January, and 7l. 12s. 10d. to 7l. 14s. per ton for deliveries to be made at the end of March. The direct imports of pure copper into Havre were 2025 tons less last year than in 1867, nevertheless the stock was 600 tons higher at the close of 1868 than it was a year previously—a result which is attributable to indirect imports from Liverpool and Swansea. Prices at Havre were 4l. to 4l. 10s. per ton higher at the close of 1868 than they were at the close of that of 1867. The total transactions in Chilean copper at Havre during 1868 amounted to 19,300 tons, against 7100 tons in 1867, and 10,800 tons in 1866. The stock of copper of all descriptions on hand at Havre at the close of 1868 was 4950 tons, against 4235 tons at the close of 1867. The total direct and indirect imports of copper of every description at Havre in 1868 were 20,095 tons, against 16,689 tons in 1867. On the Paris copper market the tendency has been very good, and prices show some advance. Chilean, in bars, is quoted at 75l. 16s. to 76l. per ton; ditto in ingots, 80l.; and Corocoro mineral, 77l. per ton. At Marseilles, Toka has brought 74l.; Spanish, 74l.; and Chilean and Peruvian, 75l.; rolled red copper for sheathing, 84l.; and yellow copper, 80l. per ton. The advices from England have exerted a favourable influence on the German markets. At Hamburg there has been a better tendency, especially for Lake Superior. At Rotterdam and Amsterdam there has been rather less animation. Some affairs have taken place in Russian at 51s. 1s. and in Dronheim at 50 to 52s. The Havre tin market appears to be declining in importance every year; the imports of tin at this port have in fact declined from 1098 tons in 1867 to 806 tons in 1868. At Paris tin sustains itself somewhat better; Banca is quoted at 117l., and English, to be delivered at Rouen, at 112l. per ton. On the German tin market the tendency has been firm. At Hamburg a moderate amount of business has been done; prices are maintained with firmness. The Dutch tin markets have risen, and transactions show a good deal of animation. Banca has been dealt in currently at Amsterdam at 65 to 66s.

THE HAVRE EXHIBITION.—REPORTS OF THE INDUSTRIAL JURY. A handsome and interesting volume has just been issued by Messrs. J. M. Johnson and Sons (the concessionaries for the publication), of Castle-street and Hatton-garden, containing the reports of the International Jury, and the official catalogue of all the exhibitors who received rewards. The manner in which the several exhibits are noticed is very satisfactory, a good idea of the nature and utility of the invention being given, accompanied by an excellent translation, which facilitates the comprehension of all improvements, whether exhibited by Englishmen or Frenchmen, by those of each country. The catalogue occupies about 600 pages, and the quantity of information contained is really marvellous. With regard to the printing, it is sufficient to mention that it is done by Messrs. Johnson and Son, whose catalogues and other works connected with the Paris Exhibition of the previous year are already well known, whilst the general arrangement of the book is all that can be desired; and there is no doubt that, as they mention in their preface, every prescient eye has been taken to render it as accurate and complete as possible. It will long form a very useful volume of reference for commercial men generally.

MERCANTILE HANDBOOK.—There is a vast amount of information constantly required in the merchant's counting-house, which is extremely difficult to retain in the memory, although hitherto the memory has been almost exclusively depended upon. Under these circumstances Messrs. Bate, Henty, and Co.'s, Mercantile Handbook for India, China, and the Colonies (the edition of which for 1869 has just been issued) will be found extremely useful. It comprises a diary, directory of British manufacturers, and various other useful information; and it is altogether a book which should be patronised by every merchant, both at home and abroad.

DEATH.—At Callington, on Jan. 18, Captain F. C. HARPUR, in the 51st year of his age. He was the eldest son of Capt. Samuel Harpur (formerly of Kenwyn, Cornwall), manager of the Cata Branca Mines, in Brazil, and his son, whose death is now recorded, was engaged at these mines for ten years. Capt. F. C. Harpur having returned to Cornwall, went in 1850 to Abbey Green, Rock River, and other mines, but in 1855 again returned to Cornwall, to manage several mines in that county. But few mine managers were more respected.

FOREIGN MINES.

ST. JOHN DEL REY.—Morro Velho produce for Nov., 9130 oits., from 5390 tons of ore; yield, 1,690 oits. per ton. Morro Velho cost for November, 5057l.; loss for ditto, 1527l. Morro Velho produce, 11 days of December, 2208 oits.; yield, 1,120 oits. per ton. Gala produce for November, 1422 oits., from 845 tons of ore; yield, 1,682 oits. per ton. Gala cost for November, 4897l.; Gala produce for ditto, 1171l. Gala produce, 11 days of December, 433 oits.; yield, 1,433 oits. per ton. Excessive rains had impeded the work both at Morro Velho and Gala.

DON PEDRO.—Produce for November, 15,344 oits., at 8s. 6d. per oitava=6211l.; cost, 2489l.; profit, 4022l. Though the produce does not equal that for October, still we are enabled to show a profit on the month's operations of upwards of 4000l. The lode excavated from No. 5 has not been so rich, no box work taken out, the supply affected by a heavier silt lick, and the force interfered with by the authorities for service in National Guard and army. Extract from Mr. F. S. Symons's letter of Dec. 17:—Produce cleaned to date, 7243 oits. The general stopes have yielded some first-class work, and a few boxes of vein silt, but the operations generally have progressed satisfactorily, and the features of the mine maintain their promising appearance.

ANGLO-BRAZILIAN.—Produce for November, 3934 oits., at 9s. per oitava=1770l.; cost, 1718l.; profit, 62l. During the early part of the month arbitrary recruiting measure, necessitated by the exigencies of the war, were pursued in this neighbourhood, causing consternation among the force, and consequent diminution in the attendance and amount of work accomplished. Still, I have the pleasure to report the produce, due to an opportune amelioration of 2 1/4 per cent. in the standard of the stone treated, exceeds that for October, and enables us to show a small profit on the month's operations. The aspect of the mine throughout the month has been satisfactory, and the work of the mine has been extended to the workings northward of the shaft, and the appearance and auriferous quality of the lode never were more encouraging than at present; indeed, the aforesaid amelioration in standard has been influenced principally by the gold-producing properties of the stone from this section.—First Division of December.—Extract from Mr. F. S. Symons's letter, dated Dec. 17:—In the mine department little or nothing new has occurred since my last. The attendance of force is gradually improving, and a fair amount of work being accomplished. The lode in the stopes from Dawson's shaft, where the junction was formed with Dawson's canoa, is 18 ft. wide, by 9 ft. high, maintains highly-encouraging features, and, to date, the samples at the wash-house from the same have been most satisfactory. The main body of Dawson's canoa, however, is still very much disordered with killas.

ROSSA GRANDE.—The produce for November amounts to 919 oits. of gold (equal to 106 ozs. troy). The operations have proceeded with regularity, and the produce is a trifle better in proportion than that for October. No change has taken place in the size or character of the lode in the main level, but the features in the adjoining stopes, as well as the lode in the top level and western level, have improved. In sinking the shaft the lode is diminishing in size; however, in the level which has been commenced westward of the shaft, and in strong appearance.—First Division of December.—Extract from Mr. E. Hilleke's letter, dated Dec. 16:—Owing to the unfavourable weather our operations have not been prosecuted with the usual speed. The features of the lode at the different points of progress, I am pleased to say, maintain their prosperous appearance, except the eastern end of the main level; the lode here still continues very small, and no improvement is perceptible. Little has been done on the summit of the mountain, owing to the bad weather.

SAO VICENTE.—About 7 fms. west of cross-cut No. 2, on the jacotinga formation, there is an old cross-cut, apparently 12 fms. long; but, after extending the level referred to in my last about 6 fms., we again fell in with it inside the pile of stuff fallen from the back. This level, we have now ascertained, was extended about 68 fms. into the hill, in a direction almost parallel with that of No. 2 cross-cut. It is evidently a very old mine, for, excepting the pits sunk, there is not a vestige of timber visible, and consequently great care was required in examining it. I managed, however, to take some samples from various points, but none showed gold in the batea. This level, or rather, cross-cut, evidently was driven in pursuit of gold, and not of iron, as was supposed. About 15 fms. farther in there is a very promising bed of jacotinga, and, as No. 2 cross-cut will, I think, intersect it in a few days, I purpose opening a communication between the two mines through it, not only to prove it, but also to improve the ventilation.

TAGUARI.—Extract from a letter from Dr. Birt, dated Sabara Dec. 14:—Since my last (Nov. 29) I have but little to inform you of, more than we have been impeded by the heavy rains, which caused a little difficulty in the small shaft, from which we were taking out good samplings, and owing to this the force employed there has been removed to the shallow adit, which is proceeding satisfactorily. The deep adit is about 20 fms. long, and is making progress, but not rapidly. The nature of the ground driven through has to be well timed, the other force are busily engaged about the surface, which I need not inform you have been slightly impeded. Pengelly has met with some very good samplings of stuff, which would give very good results had we stamping mills erected.

ANGLO-ARGENTINE.—The secretary writes that he has much pleasure in stating that the news received by this day's mail more than confirms the reports previously received, but for reasons already stated particulars must for the present be withheld.

PONTGIBAUD.—W. H. Rickard, Jan. 2: Roure's Richards's engine-shaft has attained the required depth for a 150 metre level, and the plat set out. The winze sinking below the 125 metre level, south of shaft, is unproductive. cross-cut in the 80 metre level south is more favourable for driving. The winze sinking in the 80 metre level south yields 1 ton of ore per fathom. The Stollen cross-cuts west are without change, also the 29 metre level cross-cut, towards Virginie's lode. Our stopes and tribute pitches are without any noticeable change.—La Grange: The cutting the 100 metre level plat, at Nosky's engine-shaft, proceeds slowly, the ground being exceedingly soft, wet, and troublesome. The 80 north yields 1/2 ton per fathom. The stopes in the back of the 80 and the tribute pitches in the back of the 60 metre level, yield fairly.—Mioche: The adit level north, on No. 6 lode, is poor. The adit cross-cut east is a little better. The other force are busily engaged about the surface, which I need not inform you have been slightly impeded. Pengelly has met with some very good samplings of stuff, which would give very good results had we stamping mills erected.—La Grange: The cutting the 100 metre level plat, at Nosky's engine-shaft, proceeds slowly, the ground being exceedingly soft, wet, and troublesome. The 80 north yields 1/2 ton per fathom. The stopes in the back of the 80 and the tribute pitches in the back of the 60 metre level, yield fairly.—Mioche: The adit level north, on No. 6 lode, is poor. The adit cross-cut east is a little better. The other force are busily engaged about the surface, which I need not inform you have been slightly impeded. Pengelly has met with some very good samplings of stuff, which would give very good results had we stamping mills erected.

LUSITANIAN.—Capt. Chegwin: Setting List for January: The lode in sinking Taylor's engine-shaft below 120 is worth 1 1/2 ton of ore per fathom. The lode on the level, east of Taylor's, on Basto's lode, is worth 1 1/2 ton per fathom.—Levels on Basto's Lode: The lode in the 120, east of Taylor's, is worth 3 tons per fathom. The lode in the 120, west of Taylor's, is worth 1 ton per fathom. In the 110, east of Taylor's, the lode is 1 1/2 ft. wide, yielding small stones of ore. In the 110 west the lode is 1 1/2 ft. wide, composed of quartz and stones of ore. In the 90, east of River shaft, the lode is 1 1/2 ft. wide, composed of a dry flookan. In the 70, east of ditto, the lode is 2 ft. wide, composed of quartz and flookan. In the 38, west of Perez' shaft, the lode is 8 in. wide, composed of soft quartz, mixed with flookan.—Levels on Branch: In the 8, west of Perez' shaft, the lode is worth 1 1/2 ton per fathom. The 8, east of No. 75 winze, and west of Perez' shaft, are suspended. In the adit level, west of Perez' shaft, the lode is 8 in. wide, and worth 3 tons per fathom. Levels on Fonte Lode: In the 28, east of the slide, the lode is 9 ft. wide, composed of quartz, with some mica. In the 60, level cross-cut, south of Oak shaft, the ground is hard gneiss. In the 18, level cross-cut, south of Basto's lode, west of Perez' shaft, the ground is a mixture of gneiss and quartz branches.—Carvalho: In sinking the Incline shaft below the 40 the lode in the shaft is small and unproductive.—Levels on the Great Lode: In the 40, east of Incline shaft, the lode is 2 ft. wide, and worth 1/2 ton of blende per fathom. At the 30, east of ditto, the lode is worth 1/2 ton. In the 20, east of ditto, the lode is 1 1/2 ft. wide, composed of quartz and country, mixed with lead. For the latter it is worth 1/2 ton per fathom. In the 10, east of ditto, the lode is worth 3/4 ton per fathom.—Levels on the North Lode: In the deep adit level, west of River Calma, the lode is 1 ft. wide, composed of quartz and munda. In the top adit level, west of ditto, the lode is suspended.—Levels on the Caunter Lode: At the adit level, west of Incline shaft, the lode is 15 in. wide, composed of good-looking quartz, impregnated with lead.

RHENISH CONSOLS.—G. Sweet, Wiehl, Jan. 18: Christians: The end driving east on the course of the lode in the 20 lachter level has improved, and will now afford 1 ton of lead ore per lachter. The western drivage in this level will afford 1 1/2 ton of lead ore per lachter. The different stopes are the same as when last reported on.—Bilebach: While the engine was being overhauled and repaired, the heavy floods of rain threw a great quantity of water into the mine, but I am glad to state that the engine is now in good working condition, the water again pumped out, and operations resumed in the bottom level. The drivage west on the course of the middle lode, in the 10 lachter level, will still afford 25 centners of lead ore per lachter, and the other points in operation are without alteration since my last report.

CAPULA.—Capt. Paul, Nov. 26: Since my last of the 8th inst. we have only sent to Mexico 141 marc 5 1/2 ozs. (1133 1/2 ozs.) of silver from the metal at Sanchez; we should have sent another small bar, but it set in the furnace, and could not be got out in time for the conducta. We have sent from Sanchez altogether 629 marc 1/2 oz. (5032 1/2 ozs.); the net proceeds amounted to \$490 63 c. There is still in the hacienda 230 cargans of metal and polvillo, all calcined; they have promised it shall be reduced this week; if so, we shall send the silver to Mexico by the conducta next week.—The Mine: The works are confined at present to the driving of San Enrique level, and the cross-cut south from the Esperanza end, in neither of which is there any alteration to note since my last. We have also commenced driving a cross-cut north from the bottom of the shaft to intersect the lodes of El Carmen and San Ignacio, to see if it will let down the water from the adit levels and winzes. We have put in a temporary pen-house in the shaft over the cross-cut to take up the water from falling so heavy over the men. Two of the sumpmen have left; we gave them \$200 per vara, but they could not get what they call wages for such a wet place even at that price. The men employed driving the cross-cut are pitiable in their condition, as soon as we expected by four days on account of the heavy rains; it is now all right, and the water in fork; we kept the water all the time to the bottom of the working-barrel by putting in a wire-rope clack. Dec. 7.—They have finished reducing the second lot of Capula ore at Sanchez. We sent by the last conducta on the 1st inst. 381 marc 3 ozs. (3050 ozs.) of silver, making a total of 1011 marc 8 1/2 ozs. (8083 1/2 ozs.). I have not yet received the account of the net value. Altogether the results have been very bad,

a heavy loss of quicksilver, especially with the Polvidos. The work we have been doing towards the erection of stamps and barrels is the site originally intended for the hacienda, a rough plan of which I now enclose. For several months in the year there is scarcely sufficient water to work eight heads to the stamps and four barrels to the other wheel; without the water from the mine we should not be able to move four heads.—The Mine: In the cross-cut driving north from the bottom of shaft we have met with a narrow branch, with good points of ore, and letting out a great deal of water; we consider the branch to be part of El Carmen lode, and in about 20 varas we expect to intersect San Ignacio lode, when we expect all the winzes on the small veins will be drained, and very probably San Onofre winze in San Enrique level. Should we meet with metal in cutting San Ignacio lode we shall drive east on it, to communicate with San Silverio winze, on the same lode, where there is a narrow, but good, branch of ore. After cutting San Ignacio vein the sumpmen will resume the sinking of the shaft, and should there be a great increase of water we shall immediately put down the 10-inch lift. In San Enrique end there appears to be 127 more gossan ore on the south part of the lode, the part we are driving on to get under a winze that is sunk some varas below the San Enrique level; the white quartz with blue spots of ore is standing to the north. In the cross-cut south, from Esperanza end, the ground is rather hard, composed of quartz, and letting out much more water, which shows there is still more lode to the south. As soon as the water is gone from the winzes we shall put men to clear them up, and commence sinking to make a trial of the lodes in different places, and should we arrange with Messrs. Manceras about San Diego hacienda, we shall immediately put all force to break metal, and get a torta with as little delay as possible. If we take San Diego we shall have to purchase all materials required for the reduction works.

CAPE COPPER.—J. Williams, Dec. 12: I beg to report for the information of the Chairman and board of directors that the engine-shaft during the past month has been sunk 1 fm. 4 ft. 1 in. without much change in the ground; the shaftmen have 4 fms. 2 ft. more to sink to complete the lift to the 40, at 45l. per fathom. The 30, south-west from engine-shaft, has been extended during the past month 3 fms. 2 ft. in a good course of copper ore, the last 6 ft. in unproductive ground; the end at present is more kindly, and producing good stones of copper ore; re-set, Dec. 1, to three men and three labourers, at 16l. per fathom, for 4 fathoms or the month. The 30 has been extended during the past month 4 fms. 1 ft. 8 in. north from engine-shaft, in a very fine course of copper ore; it is still looking very well and promising; re-set, Dec. 1, to two men and two labourers, at 10l. per fathom, for 4 fathoms or the month. The 30 has been extended west from engine-shaft during the past month 2 fms. 4 ft. 4 in. in a good course of copper ore, and continues to hold good; re-set, Dec. 1, to three men and three labourers, at 25l. per fathom, for 3 fathoms or the month. The winze in the 30 has been sunk 4 fms. 0 ft. 6 in. during the past month in a very good course of copper ore; at present its yield is about 6 or 7 tons per fathom; re-set, Dec. 1, to two men and two labourers, at 15l. per fathom, for 4 fathoms or the month. The 20, west from engine-shaft, has been extended in the past month 3 ft. 7 in. In very hard quartz rock, with occasional stones of copper ore; re-set, Dec. 1, to one man and one labourer, at 30l. per fathom, for 1 fathom or the month. The 20, east from south level, has been extended east 2 fms. 3 ft. In the past month through very kindly ground, which has produced some good copper ore; it seems likely to improve; re-set, Dec. 1, to two men and two labourers, at 12l. per fathom, for 4 fathoms or the month. No. 2 winze has been sunk below the 20 during the past month 1 fm. 3 ft. 1 in. in a good course of copper ore; we have about 6 ft. more to sink to the 30, and about 9 ft. more to drive in the 30 to come under the winze; it will take about a month to complete; re-set, Dec. 1, to four men, at 15l. per fathom to hole. The 20, north from engine-shaft, on the flookan course, has been extended 2 fms. 3 ft. 6 in. during the past month without any material change; re-set, Dec. 1, to two men and two labourers, at 10l. per fathom, for 4 fathoms or the month. In driving the east of the flookan-course, the incline course that the incline shaft is sunk on, east of the flookan-course, it is producing some very rich dark and smoky copper ore, and looking very kindly; re-set to drive east, Dec. 1, to two men, at 10l. per fathom, for 3 fathoms or the month. The stopes in the back of the 20 are looking very well, and will yield about 8 tons of copper ore per fm. Nov. extracts, 527 tons of 2240 lbs., or 502 tons of 2352 lbs.; average per sack 34 1/2.

LAGUNA.—T. R. Rule, Dec. 8: The shaft is now sunk about 90 varas from surface. The appearance of the vein is much the same, producing good stones of ore. The last torta of silver is in the patio of San Pascual hacienda, and will, probably, be washed in the course of another eight days.

J. P. Sewell, Real del Monte, Nov. 5: There can be no possible doubt as to the utility and success of a mine in Laguna, when it joins the Arvalo on the same vein. Arvalo is one of the richest mines in the country. Jesus and San Rafael Mines prove the vein rich on the other side of Laguna.

WEST CANADA.—Capt. F. Williams: Huron Copper Bay: The stopes in the bottom of the 20 fm. level, east of Stephens's winze, is looking better, and will now yield 1 1/2 ton of ore per fathom. The stopes in the bottom of the 20 fm. level, west of Palmer's shaft, is worth 3 tons per fathom. The stopes in the bottom of the 35 fm. level, east of this shaft, is worth 2 tons of ore per fathom. The stopes in the bottom of the 20 fm. level, east and west of Powell's winze, on the Fire lode, are worth 1 1/2 ton per fathom. The lode in the 60 fm. level, west of Mitchell's shaft, is worth 1 1/2 ton of ore per fathom. The stopes in the bottom of the 36 fm. level, east of this shaft, is worth 2 tons of ore per fathom. In the 36 fm. level, east of this shaft, we have just cut the main dyke, and the men are preparing to drive the 24 fm. level above, where we have a nice lode to start on; we shall have from 5 to 6 fms. to drive to intersect the dyke at this point. The lode in Mitchell's shaft is not changed since last reported on. The stopes east of Rowe's shaft is worth 2 tons of ore per fathom; the west of this shaft will yield 2 1/2 tons of ore per fathom. The stopes in the back, west of this shaft, will yield 1 1/2 ton per fathom. You will see by the setting lists that our dressing for November was small compared with other months; this was owing to the stopping of Copper Bay dressing-house for a week, to enable us to make the necessary repairs to the engine and other machinery, and now we have the Wellington house idle for the same purpose.

THE CWM DWYFOR COPPER AND SILVER-LEAD MINES.—The prospects of copper mining have greatly improved, and the advance in the price of copper in the past week is equal to from 20s. to 30s. per ton. Even as regards the poorer ores of Cornwall, at one time our great emporium and the most important of all our copper-producing districts, this advance will give new hope and vigour to our long dormant and almost hopelessly depressed national industry in that remote part of the kingdom. As stated in last week's Journal, there can be no reasonable doubt that the growing year will witness the most remarkable success in Welsh mining. It is stated that a long-known and well-established mining property, co-extensive and parallel with Cwm Dwyfor, will shortly be before the public—a mine of the same character and quality, and proved for 60 or 70 years, and capable of paying on its present limited workings a large dividend on the capital embarked. The success of this splendid property fully establishes the character of the Cwm Dwyfor, and, from analogies, it is perfectly clear that the present generation can never expect to witness even the culminating point of its progress, much less anything in the shape of its decadence or decline. It is understood that the parties interested in the one are likely also to be largely interested in the other, and thus a community of interest will be initiated which cannot fail to be in its results of great advantage to all concerned. The Cwm Dwyfor is now being supported by the shareholders of, perhaps, the most successful of British mines. This alone is a sufficient guarantee for the character of that undertaking, and assures, commercially, its undoubted success. The intersection of the lode in the Cwm Dwyfor at the 12 fathom level will probably lead to a great augmentation in the value of the mine. Those interested in mining pursuits who have not inspected the section at the company's office should do so at once, or they may regret their supineness, when the value of the mine has become quadrupled.

Coal is cheaper in Sydney than it is in Liverpool, and the quality is no longer questioned, since the City of Sydney screw steamer made the shortest passage on record from Melbourne to Suez with Australian coal.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending Jan. 17 amounted to 9530l. 8s. 7d.

THE MANUFACTURE OF WATCHES AND CLOCKS.—A most interesting and instructive little work, describing briefly, but with great clearness, the rise and progress of watch and clock making, has just been published by Mr. J. W. Benson, of 25, Old Bond-street, 99, Westbourne-grove, and the City Steam Factory, 58 and 60, Ludgate-hill. The book, which is profusely illustrated, gives a full description of the various kinds of watches and clocks, with their prices, and no one should make a purchase without visiting the above establishments or consulting this truly valuable work. By its aid persons residing in any part of the United Kingdom, India, or the Colonies, are enabled to select for themselves the watch best adapted for their use, and have it sent to them with perfect safety. Mr. Benson, who holds the appointment to the Prince of Wales, sends this pamphlet to any address on receipt of two postage stamps, and we cannot too strongly recommend it to the notice of the intending purchaser.

CURES OF ASTHMA AND COUGHS BY DR. LOCOCK'S PULMONIC WAFERS.—From Mr. C. Collins, chemist, Brettell-lane, Stourbridge: "I am much pleased to say that your Pulmonic Wafers give general satisfaction. Several of my customers have taken them for asthma, coughs, &c., and in every case they have had the desired effect. In my opinion, they surpass anything that has been offered to the public." They give instant relief to asthma, consumption, coughs, colds, and all disorders of the breath and lungs. To singers and public speakers they are invaluable. Price 1s. 1/2d. and 2s. 9d. per box. Sold by all druggists.

HOLLOWAY'S OINTMENT AND PILLS.—LIVES SAVED.—How happy would those sufferers be whose whole system is in danger of breaking down through the daily drain of discharge from ulceration and skin diseases if they only knew that a day rarely passes without new cases of cure being brought to the knowledge of the discoverer of these priceless remedies. For ulcers, sores, burns, bad legs, skin diseases, and similar maladies the insufficiency of ordinary applications is admitted by all; but none thus affected have been given to Holloway's Ointment and their expectations when a fair trial has been given to Holloway's Ointment and Pills, and a swelling usually attending this class of ailments will diminish daily under this cooling and soothing regimen.

WATSON BROTHERS' MINING CIRCULAR

WATSON BROTHERS,
MINING AGENTS, STOCK AND SHARE DEALERS, &c.
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

Messrs. WATSON BROTHERS return their most sincere thanks for the great patronage bestowed and confidence reposed in their firm for 25 years, and to assure their friends and clients it will be their earnest endeavour to merit a continuance of both.

Messrs. WATSON BROTHERS have made arrangements for continuing their weekly Circular, which has had a large circulation for many years, to the columns of the Mining Journal, their special reports and remarks upon mines and mining, and state of the share market, will in future appear in this column.

On the 23rd inst. Cornish mining was almost unknown to the general public, attention was first called to it in a pamphlet, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. Watson, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium, published in 1843, Mr. WATSON was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. WATSON BROTHERS have always a selected list on hand.

Messrs. WATSON BROTHERS transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. WATSON BROTHERS also inform their clients and the public that they transact business in the public funds, railway, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON BROTHERS are also daily asked their opinion of particular mines, as well as to recommend mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts; but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON BROTHERS having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are able to supply shares in all the best mines at close market prices, free of all charge for commission.

SATURDAY.—Market very active for New Lovell, which advanced to 23s. 8; Seton, 72s. to 77s.; Grenville, 32s. to 34s.; Don Pedro, 3 1/2 premium; Taquaril, 13s. 6d. to 15s.; Chiverton, 33s. to 4s.; Killy (St. Agnes), 4 to 4 1/2; Prince of Wales, 24s. to 26s.; Rosewall Hill and Ransom, 20s. to 22s.; Chontales, 1 1/2 to 1 3/4; Drake Walls, 18s. to 20s.; North Treskerby, 22s. to 24s.; East Caradon declined to 8 1/2, 9 1/2.

MONDAY.—The chief demand has been for New Lovell, at 23s. to 3 1/2; Seton, 77 1/2 to 82 1/2; Don Pedro, 4 1/2 to 4 3/4; Taquaril, 15s. to 17s.; General Brazilian, 9s. 6d. to 11s. 6d.; Chontales, 1 1/2 to 1 3/4; Chiverton, 33s. to 4s.; West Seton, 190 to 200; East Caradon flatter, at 8 1/2 to 9 1/2; Prince of Wales, 24s. to 26s.; Wheal Grenville, 32s. 6d. to 35s.; East Grenville, 31s. to 33s.

TUESDAY.—The market is not quite so active as yesterday; there is, however, a good demand for most tin mines at an advance, and shares difficult to get. Prince of Wales, Grenville, and New Lovell are chiefly dealt in; Prince of Wales, 25s. to 27s. 6d.; Grenville, 32s. to 38s.; New Lovell, 3 to 3 1/2; Drake Walls, 19s. to 21s.; East Lovell, 9 to 9 1/2; Great Vor, 11 to 12; Tincroft, 17 to 18; West Frances, 43 to 45; Uny, 4 to 4 1/2; Seton, 80 to 85; Great North Laxey, 15s. to 20s.; Chiverton, 33s. to 37s.; North Treskerby, 21s. to 23s.; Don Pedro, 4 1/2 to 4 3/4; Chontales, 1 1/2 to 1 3/4; Taquaril, 15s. to 17s. 6d.; General Brazilian, 10s. to 11s. 6d.

WEDNESDAY.—Market very dull. Grenville, 32s. 6d. to 35s.; Prince of Wales 24s. to 26s.; West Frances, 41 to 43; New Lovell, 3 to 3 1/2; Chiverton Moor, 5 1/2 to 5 3/4; East Grenville, 3 1/2 to 3 3/4; North Treskerby, 21s. to 23s.; Chontales, 1 1/2 to 1 3/4.

THURSDAY.—Market again very dull, and prices in most cases nominal. Chiverton, 3 1/2 to 3 3/4; Grenville, 34s. to 36s.; Great Wheel Vor, 11 to 11 1/2; New Lovell, 2 1/2 to 3; West Frances, 40 to 42 1/2; South Herodasford, 17s. 6d. to 22s. 6d.; Prince of Wales, 23s. to 25s.; Chontales, 1 1/2 to 1 3/4; Don Pedro, 4 1/2 to 4 3/4; Taquaril, 11s. 6d. to 13s. 6d.; General Brazilian, 9s. to 11s.

The 90 east is worth 5s.—Childs's Lode: The lode in the 90 is cut through, and found 4 ft. wide, worth 20l. per fathom—a very promising looking lode; we have commenced driving east and west on its course, where the lode in each end is worth 20l. per fathom. The 80 west is worth 15s., the 70 west 2s., and the 60 west 1s. Childs's Lode: We have commenced cross-cutting south in the 100 fathom level, to intersect Childs's lode, where the ground is favourable for progress.

EAST CARN BREA.—I. Richards, Jan. 15: In consequence of an influx of water, and an accident, by the bursting of one of the pumps in Thomas's engine-shaft, we have done but little below the 70 fm. level during the past fortnight. The machinery has been repaired, and the water is again being drained; we hope, without further hindrance, to have the water in fork in a few days. There is no alteration to notice in any other part of the mine since my last.

EAST GUNNSLAKE AND SOUTH BEDFORD CONSOLS.—J. Bray, Jan. 20: There is no change in the 36 fm. level cross-cut south. The lode in the shallow adit is 4 feet wide, composed of spar and gossan, with spots of ore. We are making good progress with our surface work at Impham, the wheel-pit is completed, and we have commenced to fix the wheel. The lode in the Impham adit is 6 ft. wide, producing 4 tons of ore per fathom.

EAST NEW WHEAL LOVELL.—C. Bowden, Jan. 21: We have taken up a level from the north part of the hill, on New West Lovell lode. The lode is about 6 fathoms deep. The lode is 3 ft. wide, the whole of which is being saved for the stamps; a finer looking lode for the depth cannot be seen, and I have no hesitation in saying that this ground will ultimately prove to be second to no mine in the district.

EAST PROVIDENCE.—J. Nancarrow, W. White, Jan. 20: Boorman's shaft is divided, and the skip-road in and complete to the 122 fm. level. The men are now engaged about the pit, and will be ready for sinking below this level about the end of the month. The lode in the 106, driving north, is 2 ft. wide, and has a kindly appearance, but does not at present yield tin enough to value. The ground in the winze sinking below the 106 is very good for progress, but the lode is small and poor. The lode in the 70, driving east on the Standard lode, is 15 in. wide, worth 9l. per fathom, and showing every indication of a further improvement. The lode in the 50 is opening up tribute round. The pitches are much the same as they were at the setting.

EAST ROSEWARNE.—C. Giasson, Jan. 21: In King's shaft, sinking below the 115, the lode is 10 in. wide, worth 10l. per fathom. In the 115, west of shaft, the lode is 15 in. wide, worth 6l. per fathom, and letting out more water than usual. In the 115, east of shaft, the lode is 20 in. wide, worth 8l. per fathom. In the 105, east of shaft, the lode is 12 in. wide, worth 5l. per fathom. The rise in the back of the 105, west of shaft, is holed to the 95, which has well vented the 110 fm. level. In the 95, east of shaft, the lode is 10 in. wide, worth 3l. per fathom. The engine has been keeping the water out of the mine all this week very well.

EAST SNAEPPELL.—Wm. H. Rowe, Jan. 19: The sump in the 20 north, now down 4 fathoms, has entered the expected run of ground, and the lode is improving every foot we sink now 4 ft. wide, and the composition such as is only found within a very short distance of bunch of ore. The part of the lode on which we are driving in the 35 south is still very promising, and when we get nearer the hanging I have little doubt of a good result.

EAST WHEAL BASSET.—W. Nancarrow, Jan. 20: We have not yet cut the lode in the 140, south from the new shaft. In the 130, east of new shaft, in cross-cutting south we have just cut into the lode about 1 ft., which is producing rich stones of grey copper ore—a very kindly lode, but until we get fairly through it cannot report its value. In the 130, west of No. 1 cross-cut, the lode is split into two parts, the north part producing good stones of copper ore; when these parts come together, which is likely to take place soon, I think this lode will again improve. The lode in the 130, east of No. 2 cross-cut, has a better appearance, and no doubt will improve in the next fathom or two driving. The slope in the back of the 125, east of rise, is worth 16l. per fm. for copper ore. We sampled yesterday from this slope and 130 end below 29 tons of good quality copper ore.

EAST WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, Jan. 16: The lode in the rise above the 110 east is worth from 15s. to 20l. per fathom, and the slope is worth the same value, as usual. The lode in the 55 east is worth fully 2 tons of copper ore per fm. The lode in the 55 east is worth 2 1/2 tons of ore per fathom, and which is the prettiest lode we have seen to the east of the shaft. The lode in the rise above this level is worth 12l. per fm. We are busy preparing for the ore sampling.

G. R. Odgers, W. Bennetts, Jan. 20: We have to-day sampled (computed) 165 tons of copper ore. We have no change to report underground since our last advise, because the men have principally been engaged about their ore.

EAST WHEAL RUSSELL.—J. Uren, Jan. 21: This mine continues to look well, with every appearance of a good lode in the end is large and good saving work for tin. In driving this level to hill on this beautiful tin lode it will soon intersect the Wheal Reeth great tin lode, and on this junction there is no doubt it will turn out an abundance of tin. I have every reason to believe this mine will equal the adjoining mines—Wheal Reeth, Providence, &c. There is a stamps-house close by, with a large stream of water; if these stamps were put in order returns of tin could at once be made.

EAST WHEAL RUSSELL.—W. Richards, Jan. 21: The middle lode, driving east of the Tunnel, is 2 ft. wide, containing flookan, quartz, muddle, and a little yellow and black oxide of copper. The north lode, driving east of the Tunnel, is about the same size as for some weeks past, containing caper, quartz, muddle, and a few stones of yellow copper ore. The weather having become favourable, we are progressing with the shodding in the eastern part of the set, where the ground is favourable; and we shall push on this operation to intersect the north "Georgia," or "Impham," or any other lode or branches.

FRANK MILLS.—J. P. Nicholls, J. Cornish, F. Cornish, Jan. 20: We are driving by the side of the lode in the 145 north, and the ground is favourable. In the 145 south, on the east lode, there is no change since our last report. The slope in back of this level is yielding 3 1/2 ton of lead ore per fathom. The ground in the 130 fm. level cross-cut, containing few stones of lead ore, and a little white iron branches. The lode in the 84 north is yielding a small quantity of saving work, but presenting very strong symptoms of an early improvement. The lode in the 72 north is yielding 3 1/2 ton of lead ore per fathom. The slopes in back of this level are yielding 1 ton and 3/4 ton of lead ore per fathom respectively. The lode in the 72 north from the cross-cut, in advance of the said 72 north, is yielding saving work. The lode in the 60 south is unproductive. The west part of the lode, intersected in the 60 fm. level cross-cut, is yielding 3 cwt. of lead ore per fathom. The lode in the 50 east is worth 1 ton of lead ore, and is rich in blende and lead, and we have not yet reached the hanging all. The 180 end is still proceeding on a part of the lode, worth about 60l. per fm.; this end is now about 5 fms. from being under the sump sinking in the 165, where the lode is worth 80l. per fm. The 155 end has improved, and now worth from 70l. to 80l. per fm.; we have started a new slope in the roof of this level, which is opening out well, worth 80l. per fm. We have cut through the lode in the 145 end and find it about 3 ft. wide, containing a little lead and blende, but not sufficient to value. It has, however, a promising appearance, and I believe, will soon be better.

GREAT LAXEY.—R. Rowe, Jan. 13: We have completed the new rods down to the 190, and are again forking the water out of the bottom of the mine. The lode in the 200 end is not so good as last reported, now worth 50l. per fm. The new slopes in the roof of this level are also worth 50l. per fm. In the 190 end north, owing to the great pressure of water, we cannot yet break into the lode, and have now put the men to drive east on the slide, in order to get to the other end of the lode. The 190 end, driving east, is worth 1 ton of lead ore, and is rich in blende and lead, and we have not yet reached the hanging all. The 180 end is still proceeding on a part of the lode, worth about 60l. per fm.; this end is now about 5 fms. from being under the sump sinking in the 165, where the lode is worth 80l. per fm. The 155 end has improved, and now worth from 70l. to 80l. per fm.; we have started a new slope in the roof of this level, which is opening out well, worth 80l. per fm. We have cut through the lode in the 145 end and find it about 3 ft. wide, containing a little lead and blende, but not sufficient to value. It has, however, a promising appearance, and I believe, will soon be better.

GREAT SOUTH TOLGUS.—J. Daw, Jan. 21: We have completed fixing the pitwork at Wheal Teldy, and put the engine to work last evening. The water by this time is at the 100, but with the aid of the Wheal Teldy engine we hope to make good progress in forking; and should the weather continue dry the water will abate. We sold yesterday 7 tons 8 cwt. 25 lbs., at 66l. 17s. 6d. per ton, and our prospects for tin were extremely good before the water rose over the tin ground.

GREAT WHEAL BADDERN.—R. Pryor, T. Gundry, H. Tregoning, Jan. 16: The following bargains were set to-day: The 75 to drive west on what has been called the lead lode, by six men, at 7l. per fm.; this end is driven west of cross-cut about 100 fms., and within the last 6 or 7 ft. driving a part of the tin lode has united with the lead lode. These lodes being under the eivan course, we have cut in south on the tin lode several feet, which is composed of muddle, peach, spar, and a little tin intermixed, letting out a quantity of water. The appearance and character of the lode at this point will induce anyone to say that a good lode of tin will be soon met. We have also taken the six men that were driving on the tin lode, about 99 fms. east of the junction of the lead and tin lodes, to cut in south, in order to prove the tin lode in several places, which is standing south of the lead lode for about 90 fms. in length. These are two great and important points, and we have every reason to believe will open up some valuable tin ground; and, when accomplished, we should strongly advise the rising up in the back of this level, so as to prove the Baddern lead lode in the eivan course, which is a little above the level, and in which all the lead has been met with in the old mine.

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is still yielding nice stones of lead ore, and letting out a little more water; the ground is favourable for driving.

GREAT WHEAL VOR UNITED.—Stephen Harris, G. M. Henty, John James, Jan. 21: The 216 fathom level is driven east of Metal shaft 5 fathoms, and is within 5 fathoms of being under the winze sinking below the 204. We are now clear of the influence of the cross-course, and are daily expecting to meet with the lode. The 204, driving east on the south lode, is producing a little tin, but not of much value. The winze sinking below this level is down 6 1/2 fathoms; the lode has much improved within the last 3 feet, and is now 1 foot wide, worth 15l. per fathom. The sump-winze sinking below the 204, on the north lode, is down about 12 fathoms; the lode at present is small and poor. We shall commence driving the 216, west of this winze, next month, when we expect to meet with the bunch of tin we passed through in the bottom of the 204 fathom level, by driving a few fathoms.—Ivey's shaft: Ivey's shaft is sunk about 15 ft. below the 204; the lode in the bottom of the shaft is improving, and is now 1 foot wide, producing good stones of tin. In the 204, driving west of Ivey's shaft, the lode is 1 ft. wide, worth 12l. per fathom; this end presents a very kindly appearance, and we look forward to a speedy improvement, as a few fathoms further west, in the level above, we had a very good lode. In the 162, west of Ivey's shaft, the lode is 3 ft. wide, worth 12l. per fathom, and still improving; without doubt we shall soon cut the bunch of tin we passed through in the bottom of the 204 fathom level cross-cut is progressing favourably towards Edwards's shaft, and we hope by the end of next month to commence rising against it.—Edwards's shaft: Edwards's shaft is sunk about 2 fathoms below the 125; our progress in sinking is slow, as the water is very abundant. The 125 fathom level cross-cut south, towards the lode, is letting out a quantity of water, and we anticipate the lode being near. The 114, west of Edwards's shaft, is on a large, kindly lode, with tin disseminated throughout, but not sufficient to value. Our tribute department is looking very well. We have 44 pitches, working at about an average tribute of 6s. 8d. in 11. There is a large quantity of ground laid open in the mine that will work and pay well on tribute, and, no doubt, some good discoveries will be made by the tributers. We have a great increase of water since the wet season has set in, but we are glad to say that our engines and pitwork are in excellent order, so that the bottom of both Metal and Ivey's shafts have been kept free of water, and the development has gone on most satisfactorily.

HARWOOD.—W. Vipond, Jan. 18: There is nothing new at Sear Head. In the through vein we have got past the clay, and the vein looks as usual; I think something has come in here as there is better ore in the slope, and ore is also flattening to the north side. We may probably better some further discovery when the slope gets fairly up to the place.

HINGTON DOWN CONSOLS.—J. Richards, Jan. 21: In Bailey's shaft, sinking below the 140, the lode is still of good size (5 feet wide), composed of capel, muddle, quartz, peach, and a little ore. In the 85, east of Morris's shaft, the lode is 2 1/2 feet wide, composed chiefly of capel, with small strings of ore. In the 65, east of Morris's shaft, west of the eastern cross-cut, the lode is 3 feet wide, and yields a little saving work of copper ore. In Chenail's rise, in the back of the 55 east, and east of the eastern cross-cut, the lode is worth 2 tons of ore, or 8l. per fm. In the adit level south, the ground adrift of Morris's shaft is much made.

MAES-Y-SAFN.—Jan. 20: Since our last report we have not done much at the bottom of the mine, in consequence of the heavy rain we had in December month, and which increased the water in the mine beyond our pumping power, although that power is great. When the engines are working at their maximum speed they discharge 3000 gallons of water per minute at the adit level, but this was not sufficient to keep the mine drained to the bottom while we had such a quantity of rain. Since the weather has become dryer we have forked the water at Grosvenor and No. 3 shafts, and we regret to say that these levels are full of sand and sludge, which we are clearing with all possible speed, and we hope to make a finish of it by next week. In consequence of this influx of water and sand the principal ore ground, which is in the bottom of the mine, has been under water for some time, therefore our next sampling will be a small one. There is no change to mention in the upper levels since our last report.

MUDLIN.—J. Tregay, Jan. 16: The lode in the rise in back of the deep adit has improved towards the latter end of the week, and will now produce 1 1/2 ton of copper ore per fathom. A piece of the lode has been cut in the north side of the level, further west than the winze we commenced sinking, and towards the bottom of the level the lode is worth 2 tons of copper ore per fathom. It now appears that this part of the lode is altogether north of our present western drive; we intend stripping down a piece here to prove this point.

MINERA UNION.—W. T. Harris, Jan. 21: Low's Shaft: We have resumed operations in the 60 yard level north; the lode is 2 ft. wide, yielding stones of lead, and the ground very promising. There is no alteration in the 40 yard level cross-cut; the ground consists of black limestone. Fine shaft: The pitch in the bottom of the 40 yard level is worth 12 cwt. of lead per fathom.—Boundary Shaft: The ground in the 30 yard level cross-cut consists of hard shale; good progress is being made. The pitch in back of this level south is worth 12 cwt. of lead per fathom.—Boundary Shaft: The 60 yard level north is making satisfactory progress; the ground the same as last reported. No other alteration to notice in any portion of the mine.

NEW CLIFFORD.—J. Mitchell, Jan. 21: Our progress in the north cross-cut these last few days has been rather slow, owing to a course of quartz we have had to drive through. The strata at present is either a yellowish or greyish, and of a very congenial character for the production of copper ore, which we are certain to have in a very short time as they had in the adjoining mines; one of them, the Penstruthal, gave a profit in two months of 17,000l. The lode recently driven through in the above-named cross-cut is the Penstruthal lode, and the muddle and copper in it of precisely the same character. The engine and pitwork are in first-rate order.

NEW CROWN HILL.—A. Kent, T. Trelease, Jan. 19: At the engine-shaft we are sinking with fair progress. The western pitch at the 35 is improved in value, and producing better work than it has for some time past. The eastern pitch is without change since last report.—Wheal Louisa: At the 75 cross-cut the ground is a good deal easier than it has been; we hope to make good progress towards the lode. At the 60 end east there is nothing worthy of remark. We are getting off a cargo of muddle as fast as possible.

NEW GREAT CONSOLS.—R. Pryor, R. Trathen, T. Bennetts, Jan. 19: During the past week Ellis's engine shaft men have made good progress in casing and repairing the shaft, putting in footwells, &c., and clearing the 86 fm. level, and shall in course of a few days be able to resume the raising of this level in a fine lode, which will soon lead to a good course of copper ore. The lode in No. 2 slope, in back of the 64 is worth 9l. per fathom. The lode in No. 3 slope, in back of ditto, is worth 14l. per fathom. The lode in No. 3 slope, in back of ditto, is worth 10l. per fathom. No. 4 slope, in this level, is worth 14l. per fathom. The lode in the slope in the back of the 52 is worth 10l. per fathom. The lode in No. 2 slope, in back of the 40, is worth 9l. per fathom. No. 2 slope, in back of the 30, is worth 16l. per fathom. The lode in No. 1 slope, in back of the 30, is worth 7l. per fathom. The lode in No. 2 shaft, in back of this level, is worth 7l. per fathom. The lode in No. 1 shaft, in bottom of the 20, is worth 10l. per fathom. No. 1 slope, in the back of this level, is worth 6l. per fathom. No. 2 slope, in the back of the level is worth 9l. per fathom. We have again resumed the sinking of Rendie's shaft, which will be pushed on with all possible speed, in order to effect the communication. We have also erected the shaft tackle, which will enable us to draw with much greater speed.

NEW TRELEASE.—S. Michell, Jan. 21: The lode in the new shaft appears to be growing larger, it is a kindly lode, and letting out a large stream of water. In the 78, east of shaft, no lode taken down for 12 feet, the men will commence to do so to-morrow; I think we shall find it the same as when taken down last, worth 2 tons of ore per fathom. The slope in the back of this level will produce 3 tons of ore per fathom. The 78 west is not looking altogether so well as last reported, worth 1 ton of ore per fathom.

NEW WHEAL LOVELL.—Charles Bowden, J. Price, Jan. 21: The different points throughout the mine compare the same value as last reported—on the whole, it is looking exceedingly well. We are progressing favourably with the erection of additional stamp-leads, which have become necessary consequent on the great improvements in the mine.

NEW WHEAL TOWAN.—R. Pryor, Jan. 20: The lode in the slopes in the back of the deep adit level is still worth fully 1 ton of good copper ore per fm., and showing fair indications of yielding a large quantity of ore in the back of this level.

NORTH POOL.—J. Vivian and Sons, F. Clymo, Jan. 20: Ballarat shaft is now 3 fms. 2 ft. below the 40, sinking slowly, worth 25s. per fathom; the lode in the last fathom or two sunk has been small and unproductive, but is now increasing in size, and contains copper ore and muddle; there are also faces of blende and muddle in the adjacent rock; these appearances are favourable. In a month we calculate on reaching the 50 fm. level. There is a favourable looking lode in the eastern end of the winze, from the 24 to the 40, on the middle lode, containing copper ore throughout, at about the 30, and we have commenced driving the last-named level in that direction. We have had a tolerably good bunch of copper ore, and we are proceeding favourably westward also. We shall sample in a few days about 15 tons of good quality copper ore.

NORTH RETALLACK.—G. R. Odgers, J. Harris, Jan. 20: We are very pleased to tell you that the water has gone down 10 feet below the 10 fathom level, and which is going 3 ft. in 24 hours; we hope, therefore, to shortly be in a position to resume operations.

NORTH TRESKERBY.—R. Pryor, T. Jenkin, Jan. 21: Tresider's Shaft: The lode in the 130 fm. level end, east of shaft, is 4 ft. wide, and opening up tribute ground, with a good appearance. The lode in the slopes in the back of this level is producing 3 tons of ore per fathom. The lode in the 120 fm. level end, east of shaft, is still producing 4 tons of ore per fathom; and the lode in the rise in the back of this level is worth 2 tons of ore per fathom. The lode in the 110 fm. level end east is producing 2 1/2 tons of ore per fathom, and the end letting out a large quantity of water, which is a good indication. The lode in the slope in the back of this level is producing 4 tons of ore per fathom. The lode in Doctor's (new) shaft is 3 ft. wide, composed principally of gossan, and recently there has been a little copper intermixed. Our last sampling of copper ore, which will be sold on Thursday next, will weigh about 174 tons, 180 of which came from tutwork bargains. Our prospects continue good. No change to notice in any other part of the mine since last report.

NORTH WHEAL CHIVERTON.—W. Hancock, W. T. Bryant, Jan. 21: The engine-shaft is sunk 11 fms. 3 feet below the 100 fathom level; about 12 feet above the present bottom the lode passed through the shaft, of a much better appearance than formerly, producing more hard quartz and spar, with strong spots of silver-lead, and the country about it more firm. On the lode leaving the shaft a small branch dropped off from the western side, it is 15 inches wide, with a leader of strong silver-lead and blende in it. The 90 fm. level is driven east of last rise 13 fathoms in a portion or north part of the lode, of so fine a description as can be seen, without a course of lead, though we have had occasional small bunches worth in a place or two 5 cwt. per fathom. The lode not being cut through for the last 13 fathoms we have commenced cross-cutting through it; when done we would advise this end to be still continued on by four men, fully believing we shall yet meet with a profitable lode in this part. At Hicks's shaft we have recently proved a counter lode about 2 feet wide, composed of strong capel, spar, muddle, and flookan, inclining north-west about 2 feet in 6 feet, and letting out a good deal of water. This shaft is down 13 fathoms 8 feet below surface, and in a splendid channel of ground. We can still keep the shaft with horse-whim, and sink about 6 feet a week. The bob stands at both shafts are completed, and bobs fixed. The carpenters are now engaged fixing the rods. We calculate to get them to work about the middle of next month.

OKEL TOR.—John Bodas, Jan. 21: The lode in the winze sinking below the 65, east of Gerry's cross-cut, continues to yield 4 tons of ore per fathom. In the

Mining Correspondence.

BRITISH MINES.

BEDFORD UNITED.—J. Phillips, Jan. 21: We are sinking by the side of the lode in the shaft. The lode in the 90 east is about 3 feet wide, worth 4 tons of ore per fathom. The lode in the 75 east is from 3 to 4 feet wide, worth 5 tons of ore per fathom. The stones are yielding 4 tons of ore per fathom.

BROOKWOOD CONSOLS.—J. Rodda, Jan. 20: In driving the adit west on the course of the lode, which has been driven 22 fms., with 10 fathoms of backs gained, we have cut into and raised some fine stones of black and yellow copper ore—saving work. From almost the commencement of the adit there has been raised some beautiful stones of grey, black, and yellow copper ore, mixed with peach and prian, and the quartz is all that a miner could wish for; there are 40 fathoms of backs, and every appearance of a driving lode, and a little of a rich lode of copper. We intend driving a cross-cut to cut No. 2 lode after driving a few fathoms further west. In coasting on No. 3 lode, 40 fms. north of No. 1 lode, we came down upon some very fine gossan, the water coming so quick as to stop us; we then pitched, driving a cross-cut from the foot of the hill, which we have driven 4 fms., cutting through a caunter lode, and have about 8 fms. to drive to cut the main No. 3 lode, where from the appearance of the gossan and the cross-cut coming in at 6 fms. deep, enables us to expect a course of copper ore. We have not done anything to the Kunniford Combe tin lode, which runs through the set of 103 acres.

BRONFLOYD.—T. Kemp, Jan. 20: The part of the lode opened on to the west of cross-cut in the 73 is now producing 15 cwt. of ore per fathom. The lode to the west of cross-cut in the 62 is still looking exceedingly well; the part we are opening on and stopping down is about 15 ft. wide, and is worth for that breadth 3 1/2 tons of ore per cubic fathom; this looks well for the 73 when it gets under this point. The winze sinking below this level is down 3 fathoms 3 feet. The lode in the bottom of the winze is without much change; it is producing ore, but not of rich quality. The slope under the 52 is worth 1 1/2 ton of ore per cubic fathom. All other bargains are without alteration to notice. Several tests are broken off the spur-wheel of our crusher, and we are obliged to delay crushing for a day or two to get it repaired.

CAPE CORNWALL.—R. Pryor, F. Hosking, Jan. 18: The ground in the 100 fathom level cross-cut, driving north of engine-shaft, is a little more spare for progress, being mixed with spar, which contains rich spots of yellow copper ore. In the 70 fm. level cross-cut, driving south, the ground is still improving.

CARADON CONSOLS.—S. Bennetts, Jan. 18: The gossan lode continues large and of a very promising character, yet without much ore; since the end has passed the little spar cross-course the ground has become more settled, and the 204 contains less gossan. The Clymo's lode, in the 78 west, is about 1 1/2 foot wide, and ore throughout, but not very rich. The main lode is not as yet cut in the south cross-cut, nor is the north cross-cut yet through the eivan.

CASTELL CARN DOCHAN (Gold).—J. Parry, Jan. 18: We have got about 80 tons of lodestuff from the drive of the cross-cut in the deep adit; when the drive is extended and a sump made to the shallow adit the stuff can be raised by stopping, and trammed out along the adit at a very cheap rate. We found a speck or two of visible gold this week.

OPEN BRWYNO.—J. Paul, Jan. 19: The 92 east is let to six men, at 17s. 6d. per fathom; lode here 8 ft. wide, worth 8 cwt. of lead ore per fathom. The 92 west and 82 east are suspended for the present, and the men put to sink below the 68, west of



time last year. Wire-rope is still in general use for ships' standing rigging...

CHEAP STEEL BY NEW PROCESSES.—It has been accepted as beyond question, though the subject had never been carefully investigated...

GOLD MINING IN BRAZIL.—As will be seen by the details of the meeting of the Taquiril Company, reported in another column...

WEST TOLGUS MINE.—It cannot fail to be satisfactory to the shareholders to be informed that, notwithstanding statements to the contrary...

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

SOUTH MERLYN.—The results of operations carried on at this mine since the present company have secured the leases are reported as very satisfactory...

OLD HERODSFOOT.—An error appeared in last week's Journal—the Old Herodsfoot Mine was three sets, and not two only, as stated...

BRONFLOYD.—The wonderfully productive character of this mine—the year's results of which we gave in the Journal of Jan. 2—is still further developing itself...

CENTRAL MINERA.—The prospects of this mine are much improved. I was underground there yesterday, and was quite pleased with what I saw...

SOUTH CROFTY.—In the 130 cross-cut north, on Price's lode, the lode has at length been cut through, and is 15 ft. wide...

WHEAL MARY FLORENCE, AND DISTRICT.—In addition to the run of ore ground discovered west of Saw's shaft, there are strong indications of ore eastward much earlier than expected...

MINING IN ST. AGNES DISTRICT.—The gloom that has so long been resting upon the mining interest of this and other neighbourhoods seem to be fast passing away, and a better state of things fast dawning upon us...

GREAT NORTHERN COPPER MINING COMPANY OF SOUTH AUSTRALIA (Limited).—A petition for winding-up this company by the Court of Chancery has been presented to the Master of the Rolls by Mr. Robert Brown Lang...

We this week publish a SUPPLEMENTAL SHEET, which contains the Title-page and Index to the Thirty-eighth Volume of the MINING JOURNAL—Temperature of the Earth's Crust, by Mr. Edward Hull—Progress of Copper Mining in Turkey—Mining Dividends during the Year 1868—The Copper Trade, &c.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, JAN. 22, 1869.

Table with columns for COPPER, BRASS, SPELTER, ZINC, TIN, TIN-PLATES, IRON, STEEL, LEAD, and QUICKSILVER. Lists prices per ton, per lb., or per box for various grades and types of metal.

\* At the works, 1s. to 1s. 6d. per box less.

REMARKS.—It will doubtless be interesting to the majority of the Metal Trade to know that the recent movement in transferring 'Change from the "Royal" to the "Lombard" has met with general approbation...

During the past week the Metal Market has continued to pursue the course of improvement which the present year has inaugurated, and a very considerable amount of business has been done in various metals...

COPPER.—The market for this metal has not been quite so active during the week, but still prices remain very firm, and a fair amount of business has been done...

IRON.—In Staffordshire the general result of the Quarterly Meetings has been to create increased confidence in the prospects of the trade. Pig-iron is firm, and the advance in price, which was nominally made when makers had sold heavily, is now actually given by buyers...

LEAD.—No large amount of business has transpired, but prices still remain firm at the quotations.

TIN.—On Monday the smelters of English announced an advance of 4s. per ton, making present prices 116s. for blocks, 117s. for bars, and 120s. for refined...

SPELTER.—The market remains inactive, the present quotation for parcels on the spot being 20s. 5s. to 20s. 10s.

TIN-PLATES.—Prices are firmly maintained, and the works are well employed.

STEEL IN rather better demand.—QUICKSILVER without change.

COAL MARKET.—Sixty-eight fresh ships were all that came forward this week. This moderate supply and colder weather produced a marked effect upon house coals, and business was brisk at an advance of fully 6d. per ton...

EXPORTS OF COAL.—By the Monthly Circular of Messrs. Higginson, Liverpool, we learn that the quantity of coal exported in December was 735,129 tons, against 636,148 tons in the corresponding month of 1867...

THE COPPER TRADE.—Messrs. Vivian, Younger, and Bond (Jan. 22)—The business in West Coast produce has not been quite so extensive during this week, and prices of some sorts have declined a little...

but most of the limits are still too low to admit of execution. In fine foreign a few bargains have been made at our quotations.

Messrs. James and Shakspeare—Copper ore and regulus have found purchasers, but not over 15s. per unit, and there is more disposition to sell at present quotations...

We stated in our last that it was very probable tin would further advance early this week, and on Monday it rose 3s. per ton, and caused a good demand in the MINING SHARE MARKET for several tin mines...

West Frances shares have not been so firm, at 40 to 42½; at the meeting, held on the 14th, the accounts showed a profit on the three months of 477s. 7s. 7d., and a balance in hand of 478s. 0s. 3d.

Drake Walls, 18s. to 20s.; the accounts presented to the meeting on Jan. 13 were from June, 1867, to November, 1868, and showed a balance against the company of 3013s. 1s., to liquidate which a call of 5s. (3200s.) was made. The tin sold during the period referred to realised 6212s. 10s.; the expenditure for extra machinery, 1000s.

There has been a large business done on the Stock Exchange during the week in Mine Shares, foreign, and chiefly Brazilian, descriptions absorbing most attention. Taquiril rose to 7s. 6d., and close 6s. to 7s. premium, and in strong demand; favourable advices, and Capt. Treloar's report on the property, are expected shortly to arrive...

IRISH MINE SHARE MARKET.—Not much business was done this week in Mining Shares, but prices were well sustained, and leave off advancing. Connoree shares were wanting at this last price of 4s. Mining Company of Ireland shares (7s. paid) fluctuated between 11s. 6s., and 11s. 7s. 6d. for cash and account, and just close at 11s. 5s. for account...

Appropos of the Mining Company of Ireland, comments are being made on the omission on the part of the management for a long time past of reports and estimates on the reserves of lead and copper ores at Laganure, and more especially at the very extensive copper



mines of Knockmahon. A thorough survey of the works on and underground of the latter, and a publication of the result, would, we have no doubt, give that reassurance to the shareholders and the general public which is now—after an unexpected disappointment in not receiving a dividend—so much needed to support the usual market value of the company's property.

At Truro Ticketing, on Thursday, 3322 tons of ore were sold, realising 14,942l. 1s. 6d. The particulars of the sale were:—Average standard, 108l. 13s.; average produce, 6½; average price per ton, 4l. 10s.; quantity of fine copper, 221 tons 12 cwt. The following are the particulars of the sales during the past month:—

The Standards of Tin Ores and Prices of Metal were advanced on Monday, and are now as follows:—Ore: Common, 105s.; superior common, 106s.; fine, 107s.; superior fine, 109s.—Metal: Common, 116s.; refined, 120s.

The directors of the Devonshire Great Consolidated Copper Mining Company, at their board meeting, held yesterday, declared a dividend of 4096l., being 4l. per share, arising from profits on sales of copper ore sampled in the months of September and October last.

At Cook's Kitchen Mine meeting, on Jan. 13, the accounts for the three months ending October showed a credit balance of 847l. 9s. 9d. The profit on the three months' working was 603l. 8s. 11d. A dividend of 613l. 10s. (5s. per share) was declared, and 233l. 19s. 9d. carried to credit of next account.

At Frank Mills Mine meeting, on Feb. 2, a dividend of 3s. per share will be declared. The sales of lead for the quarter amounted to 4345l. 12s. 2d.

At Penhalls Mine meeting, on Tuesday (Mr. W. Goslett in the chair), the accounts for the three months ending November showed a profit of 911l. 10s. 3d. A dividend of 623l. (2s. 6d. per share) was declared, and 487l. 0s. 2d. carried to credit of next account.

At West Wheal Frances meeting, on Jan. 14, the accounts showed a profit on the three months' working of 477l. 5s. 7d. The agents were authorised to increase the stamping power of the mine by the addition of 32 heads of stamps and suitable floors, to enable them to increase the returns of tin.

At West Wheal Frances meeting, on Jan. 14, the accounts for the three months ending October showed a credit balance of 478l. 0s. 3d. The profit on the three months' working was 477l. 5s. 7d. Capt. Thomas Crase, and Mr. James J. and Thomas and F. Gilber, jun. reported upon the various points of operation.

At Great South Chiverton general meeting, on Jan. 15 (Mr. William Carpenter in the chair), the secretary read the statement of accounts, which showed a balance against the mine of 101l. 17s. 3d., everything being charged up, and all labour cost being paid, which gave great satisfaction.

The Stiperstones Mining Company sold during the year ending Nov. 30—845 tons of lead ore, realising 9899l. 14s.; 200 tons of blende, realising 835l. 18s. 3d.—10,735l. 12s. 3d., being an increase of 3200l. 7s. 5d. on the sales of the previous year.

At the Port Phillip and Colonial Gold Mining Company meeting, on Thursday (Mr. Henry Moor in the chair), a distribution of 1s. 6d. per share (free of income tax) was made, making with the 3s. per share already paid the eleventh dividend, being at the rate of 22½ per cent. per annum on the original capital.

At the Victoria (London) Mining Company meeting, on Thursday (Mr. H. Moor in the chair), the report of the directors and balance-sheet were received and adopted. The retiring directors were re-elected, and the auditors were re-appointed. Details in another column.

The Bank of England return for the week ending on Wednesday evening showed, in the ISSUE DEPARTMENT an increase in the "notes issued of 61850l., which is represented by a corresponding increase in the "coin and bullion" on the same date of 61850l. In the BANKING DEPARTMENT there is shown a decrease in the "other deposits" of 943,789l., and in the "seven day and other bills" of 22,236l.; together, 966,025l.; an increase in the "public deposits" of 573,957l., and in the "rest" of 56,386l.; together 630,343l.—235,682l. On the asset side of the account there is shown an increase in the "Government securities" of 50,000l., and a decrease in the "other securities" of 627,160l.—577,160l., showing an increase in the total reserve of 241,478l.

Mr. Antonio Brady had an interview with the Lord President and the Vice-President of the Council, at the Privy Council Office, Whitehall, on Thursday, on the subject of the East London Museum of Science and Art.

THE COPPER TRADE OF THE UNITED STATES.

As the Copper Tariff Bill now before Congress occasions a great deal of discussion, and many assertions have been made both in memorials to Congress and in the newspapers totally at variance with the facts, I have been requested to make a statement of the condition of the copper trade of the United States, and I think the following will be found as nearly correct as any that can be furnished:—

The supply of refined copper is derived from Lake Superior, Tennessee, and the Atlantic Smelting Companies at Baltimore, New York, and Boston. The smelting companies use partly domestic ores from California, Vermont, and North Carolina, and also foreign ores imported from Canada and Chili. Up to 1861 they furnished more than one-half of the estimated average consumption of 25,000,000 a year, but since then the quantity produced by them has gradually decreased, and this year they have not made more than 6,400,000 of pounds. The Baltimore Copper Company, the largest establishment, made only 4,000,000 in 1868, against 7,000,000 in 1867 and 10,000,000 in 1866.

On the other hand, the supply from Lake Superior has increased from 6000 tons (or 13,000,000) in 1860 to 6800 tons in 1861, 6800 tons in 1862, 6200 tons in 1863, 6000 tons in 1864, 6000 tons in 1865, 6200 tons in 1866, 7200 tons in 1867, and 7800 tons (or 17,000,000) in 1868. The Tennessee mines are as yet comparatively small, and furnish this year 2,000,000. California produces in 1864, 10,000 tons; 1865, 17,000 tons; and 1866, 20,000 tons of ore of 15 per cent. but the yield has fallen off materially, and is at present not worth mentioning.

The importation of pig and ingot copper has for some years past been small; that of ores has also decreased, so that in 1867 it amounted only to 2000 tons of pure copper, and this year it is still less.

The quality of the native copper produced at Lake Superior is the very best, and commands in Europe a higher price than the Australian, the dearest in the London market; the quantity exported is, however, small, amounting to 600 tons in 1867, and to 1200 tons in 1868. The quality of Baltimore and Tennessee copper is also very good. The price of copper all over the world has been for the last few years exceedingly low, and it is well understood that none of the producing companies in the United States have paid, has been particularly unfortunate, and not more than six or eight companies have ever paid dividends, and only two in 1867 paid a small percentage. In fact, only about 10 mines out of 80 which were nominally in operation in 1865, work at present to any extent, and although the want of success in the others must be in part ascribed to gross mismanagement, there can be no question that with the present high price of labour and everything else, the cost of mining has been largely increased. Under these circumstances the complaints that the present tariff has enhanced the price of all material used by them without adequate protection to them, have been loud and unceasing. Ores pay at present 5 per cent. ad valorem, ingot copper 2½ c. per pound, or 15 per cent. but as the duty on pig-iron is equal to 75 per cent., on spelter to 35 per cent., and on lead to 60 per cent. ad valorem, the mining companies for two years past have petitioned Congress to raise the duty on ores to 8 c. per pound of refined copper contained therein, and 2 cents on ingots. But for the strong hopes entertained that such protection would be afforded, it is probable that the production of Lake Superior would have been very small. As it is, the increase of this year over 1867 is mainly owing to three new mines opened in 1866, which proved richer than any others, and are now fully worked. Since the agitation of the additional duty, the Atlantic smelters, and particularly the Baltimore Company, have not dared to order any large quantity of Chili ore, which they say are the most advantageous for mixing with domestic ores; on this account the production for 1868 is small.

The smelters oppose the proposed change of duty, which would probably prevent their working to advantage, if it would not stop them altogether, for it is evident

under a higher tariff the domestic ores, if produced anywhere in large quantities, would be smelted at the mines, as is done in Tennessee, and sooner or later must be done in California.

The shipping interest also opposes the present bill, but the price of copper can certainly not be named as one of the difficulties which shipbuilders have to contend with, for it has been for the last two years lower than ever before known. The consumption of sheathing copper, yellow metal, &c., has decreased both in England and here, owing to the introduction of iron sailing vessels and steamers. The consumption of copper for other purposes has, however, gained, and the whole is calculated this year at 27,000,000, against 25,000,000 average from 1860 to 1863, 30,000,000 in 1864 and 1865, 25,000,000 in 1866, and 25,500,000 in 1867. The average price of this year has been 23½ c., currency, or 16½ c. gold; that of 1867 was 24 c., currency, or 16½ c. gold. The lowest price known before 1867 was 17½ c. gold in 1861, the highest 30 c. in 1857, and 23 c. was considered before the war an average price. The stocks are small, and if the Tariff Bill passes, the price, of course, likely to advance, if it should be defeated the Lake mines now at work will partly be abandoned, which will also raise the market price.

New York, Dec. 26. RUDOLPH C. WINTERHOFF.

THE CORNISH MINE SHARE MARKET.—The further advance in the Tin Standard of Monday last (although generally anticipated from the higher quotations the day previous for Straits) has tended to increase the difficulties of purchasers in nearly all stock, and notwithstanding that as yet the demand for mining shares is not so extensive as might have been expected from the great improvement in the position of metals of late, there has been a steady enquiry during the week for a considerable number of dividend and progressive mines—copper as well as tin—with a general tendency of prices in an upward direction. The following have been chiefly dealt in:—Tincroft, 17½, firm. Cook's Kitchen, buyers, 13½. West Frances, quiet, 42 to 43. West Uny, 3½; the two bottom levels are still under water. Rosewall Hill enquired for at 27s. 6d.; the 100 end east has improved considerably, now worth 30l. per fathom, Pendarves United in demand at 25s. New Lovell advanced to 3. Wheal Basset, better, 70 to 75. Wheal Kitty (St. Agnes), 4¼; West Great Work, 2¼; Providence, 34 to 35; Great Wheal Vor, 10½ to 11½; Wheal Margaret, 5; Carn Brea, 21 to 23; Wheal Grenville, 35s.; Wheal Jane, 39 to 41. Dolcoath improved to 45, at which price there are buyers. The copper and lead mines which have received most attention during the week are:—Wheal Seton, advanced to 80, buyers, owing to the 180 end having improved for copper. West Seton in demand at 200. Marke Valley shares quiet firm at 9. East Caradon has been dealt in rather heavily at advanced quotations, ranging from 8 to 10; shares are now steady at 9. Emily Henrietta a shade better, at 20 to 21; the meeting will be held on Jan. 25, when a call of 15s. is anticipated. East Grenville, 3½ to 3½. Prince of Wales a little firmer at 24s. to 26s. South Crofty in demand at 14 to 15. New Seton quoted 70. West Chiverton, 55 to 59; Wheal Chiverton, 3½ to 3½; Chiverton Moor, 3¼.—West Briton.

THE LOMBARD EXCHANGE AND NEWSROOM.—This, the latest addition to our large commercial centres, is now in full work, and there is every probability of its meeting with a large share of public support. The Exchange consists of the large ground-floor room of, perhaps, the finest block of offices erected in the City of London, and being situated at the junction of Lombard and Gracechurch-streets, is in a central situation as can be desired, commanding, as it does, the metal, colonial, shipping, and general monetary markets. The general management of the Exchange has been placed under the care of Mr. Younghusband, a gentleman of considerable experience, and the whole of the arrangements appear to be carried out in a manner that must prove satisfactory to the subscribers, while the subscription is fixed at a sufficiently low figure. The newsroom is likely to prove a very important feature of the undertaking; in fact, that and a telegraph office under the same roof, render the Exchange all that a commercial man can require. On Wednesday evening last a party of gentlemen sat down to dinner in the large refreshment room, at the invitation of Mr. F. Gordon, who has undertaken the management of that department. During the evening they had an opportunity of fully examining the premises, the ideas upon which the management are acting, and the different facilities offered. The dinner was well served, and the general impression left on those present appeared to be that everything was being done that could conduce to the comfort and business requirements of the subscribers.

GEOLOGICAL SOCIETY OF LONDON.—Jan. 13: Prof. T. H. Huxley, LL.D., F.R.S. (President) in the chair. William Groome, B.A., of St. John's College, Cambridge, was elected a Fellow; and Dr. J. F. Brandt, of St. Petersburg; Prof. E. Nordenskiöld, of Stockholm; and Prof. F. Zirkel, of Kiel, were elected Foreign Correspondents of the Society. Communications were read:—1. "On Hyperodapedon," by Prof. T. H. Huxley, LL.D., F.R.S., Pres. G.S. 2. "On the Locality of a new Specimen of Hyperodapedon from the South Coast of Devon," by W. Whitaker, F.G.S.

On Wednesday, the following communications will be read:—1. "Notes on Graptolites and allied Fossils occurring in Ireland," by W. H. Baily, F.G.S.—2. "Notes of Plant-remains from the county of Antrim," by W. H. Baily, F.G.S.—3. "On Basalt Dykes on the Mainland of India, opposite the islands of Salsette and Bombay," by G. T. Clark, F.G.S.—4. "On Auriferous Rocks in South-Eastern Africa," by Dr. Sutherland; communicated by Sir R. I. Murchison.

MR. WARRINGTON SMYTH'S LECTURES.—In consequence of a pressure of matter, we are compelled to postpone the continuation of this gentleman's lectures, at the Royal School of Mines, until next week.

THE MINING JOURNAL.—Now ready, neatly bound, price 1l. 10s., Vol. XXXVIII, for the year 1868. To be had in any newsagent or bookseller, or at the MINING JOURNAL OFFICE, 26, Fleet-street, E.C.

A GENTLEMAN, thoroughly conversant with MINING and the PRACTICAL MANAGEMENT of the varied CLASSES of WORKMEN connected therewith, DESIRES an APPOINTMENT as CONFIDENTIAL GENERAL MANAGER of an EXTENSIVE COLLIERY or IRON MINES, or the DEVELOPMENT of FRESH GROUND, where an investment of £500 to £600, together with high-class certified antecedents of experience, ability, and energy, moral integrity, and business habits, &c., would meet with appreciative remuneration. Address, "Engineer," care of Mr. G. Vickers, publisher, Angel-court, London.

THE ADVERTISER, who has had many years' practical experience in the ANALYTICAL TREATMENT of ORES, especially ZINC, is THOROUGHLY VERSED in CHEMICAL ANALYSIS, and has also been engaged in the ACTIVE MANAGEMENT of SMELTING WORKS, DESIRES a RE-ENGAGEMENT. The highest references. Apply, by letter, to "M. and Co.," care of J. B. Davies, Esq., Neath, Glamorganshire.

WANTED, by a Young Man (aged 23), a SITUATION as ASSISTANT MANAGER and BOOKKEEPER at a Mine. Has had five years' experience. Would have no objection to go abroad. Address, "A.B.," Post Office, Mold.

WANTED, a HORIZONTAL ENGINE, 20 in. cylinder, 3½ ft. stroke, direct action; also, BOILER, 30 ft. long, by 7 ft. diameter, egg end. Apply, stating full particulars, to "Engineer," 18, Priory-terrace, Bromley-le-Bow.

SILVER-LEAD MINE.—A FIFTH SHARE FOR SALE of one of the most PROMISING SILVER-LEAD MINES in the KINGDOM. Price, £2000. The above FIFTH could be purchased by one or more. None need apply who do not embark for investment. For full particulars, and engineers' reports, address—"O. P.," Messrs. Lee and Nightingale, 16, Castle-street, Liverpool.

TO BE DISPOSED OF IMMEDIATELY, a VERY VALUABLE TIN SETT, adjoining some of the most productive tin mines in Cornwall. Lodes discovered, and not yet explored. All new ground. Cost of working very moderate. Apply to Captain T. C., Post Office, Truro, Cornwall.

TO BE SOLD, a SMALL COLLIERY, situate near CHIRK, NORTH WALES, contiguous to canal and railway, and calculated to do a good business. For particulars and to treat, apply to SAMUEL CROWTHER, Esq., Colliery View, Bolton, Lancashire.

IMPORTANT MINING PROPERTY FOR SALE IN RHENISH PRUSSIA.—A BLENDE MINE, giving 3 to 4 tons of blende per fathom; a COPPER MINE, averaging 14 per cent. of copper; and THREE LEAD MINES, with 65 per cent. of lead. Apply for particulars, to O. J. YOUNGHUSBAND, Esq., Wiehl, Kreis Gummersbach, near Cologne, Prussia.

TO LET, a VALUABLE COAL MINE.—Apply to Mr. GEORGE DAVIDSON, Mawley, Cleobury Mortimer, Shropshire.—Dec. 12, 1868.

ENGINES FOR SALE. FOR SALE, ONE 54 in. cylinder PUMPING ENGINE, 9 feet stroke, equal beam, with or without 20 12 ton BOILERS. Also ONE 36 in. PUMPING ENGINE, 9 ft. stroke, with or without a 10 ton BOILER. With an addition of ONE 8 ton BOILER also FOR SALE. To be sold cheap. Apply to MICHELL and JENKIN, Engineers, Redruth.

THE TAQUARIL GOLD MINING COMPANY (LIMITED).—Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the shareholders of the company will be HELD at the London Tavern, in the City of London, on SATURDAY, the 30th instant, at One o'clock precisely, for the purpose of confirming the special resolution which was passed at the extraordinary general meeting of the shareholders of the company, held at the London Tavern, in the City of London, on Tuesday, the 19th day of January, 1869. FREDK. R. BLUETT, Secretary. Dated 31, Moorgate-street, E.C., the 22d day of January, 1869.

CHONTALES GOLD COMPANY.—FULL PARTICULARS of the DIFFERENT CLASSES of SHARES can be obtained on application to Mr. J. H. MURCHISON, No. 8, Austinfriars, E.C.

A FIRST-CLASS INVESTMENT.—SHAREHOLDERS in RAILWAY, BANKING, and other COMPANIES desirous of joining in an undertaking which is now making £6000 net profit on a small outlay, and which may be increased considerably, can have full particulars and "Guide" on remitting a Post Office Order for 5s. (to cover expenses) to Messrs. DUNCAN and SON, 6, Warwick-court, Gray's Inn, London. N.B.—No application received after the 29th instant.

Contract for Coals and Coke.

CONTRACT DEPARTMENT, ADMIRALTY, SOMERSET HOUSE.



THE COMMISSIONERS for Executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, do hereby give notice that on TUESDAY, the 9th of February next, at Two o'clock, they will be ready to TREAT with such persons as may be WIL- LING to CONTRACT for SUPPLYING and DELIVERING at the Extension Works, at H. M. Dockyard at Chatham, EIGHT THOUSAND FIVE HUNDRED TONS OF COALS, AND ONE THOUSAND TONS OF COKE, FOR BRICKMAKING PURPOSES, AND THREE THOUSAND FIVE HUNDRED TONS OF COALS FOR STEAM ENGINES.

Tenders may be made for the supply of all or either of the above quantities. Forms of the tenders and conditions of contract may be seen in the lobby of the Storekeeper-General's Department, Admiralty, Somerset House. No tender will be received after two o'clock on the day of treaty, nor will any be noticed unless the party attends, or an agent for him duly authorised in writing. Every tender must be addressed to the secretary of the Admiralty, and bear in the left-hand corner the words "Tender for Coals and Coke," and must also be delivered at the Department of the Storekeeper-General, Admiralty, Somerset House, accompanied by a letter signed by two responsible persons, engaging to become bound with the person tendering in the sum of £20 per 100 tons for the due performance of the contract.

By order, ANTONIO BRADY, Registrar of Contracts and Public Securities, Contract Department, Admiralty, Somerset House, Jan. 20, 1869.

Geology.—King's College, London.

PROF. TENNANT, F.G.S., COMMENCED a COURSE of LECTURES ON GEOLOGY on FRIDAY, January 22, at Nine A.M. They will be continued on each succeeding WEDNESDAY and FRIDAY at the same hour. A SHORTER COURSE will be given on THURSDAY evenings, from Eight to Nine: first lecture, January 21. Text-book, Lyell's Elements of Geology. Prof. TENNANT accompanies his students to the Public Museums, and to places of Geological interest in the country. He gives PRIVATE INSTRUCTION in MINERALOGY and GEOLOGY at his residence, 149, Strand, W.C.

NICKEL ORES—"SPEISS."

TO BE SOLD, FIFTY TONS CONCENTRATED NICKEL ORES, or "SPEISS," containing 20 to 24 per cent. Nickel, and 8 to 10 per cent. Cobalt. Price low. Apply, "A. B.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

NEW RAILS FOR SALE.

120 TONS OF FLANGE SECTION ..... 50 lbs. per yard. 160 TONS DITTO DITTO ..... 56 ditto 60 TONS OF BRIDGE SECTION ..... 70 to 75 lbs. per yard. 300 TONS OF DOUBLE-HEADED DITTO ..... 70 to 75 lbs. per yard. With CHAIRS, FISH-PLATES, POINTS and CROSSINGS, &c. Also 250 TONS of OLD RAILS of FLANGE and BRIDGE SECTIONS, for cutting up. Apply to—MR. WRIGHTSON, IRON MERCHANT, NEWPORT, MONMOUTHSHIRE.

LEAD ORES.

Table with columns: Date, Mines, Tons, Price per ton, Purchasers. Includes entries for Isle of Islay, Wiltwell, Prince Arthur Consols, Chiverton Moor, Stiperstones, Plynlimmon, Wheal Mary Ann, and Trewetha.

BLENDE.

Table with columns: Date, Mines, Tons, Price per ton, Purchasers. Includes entry for Stiperstones.

BLACK TIN.

Table with columns: Date, Mine, Tons, Price per ton, Amount, Purchasers. Includes entries for Prosper United, North Roskear, and Great Wheal Vor.

COPPER ORES AND REGULUS.

Table with columns: Lot, Description, Tons, Price per ton, Purchasers. Includes entries for West Canada, ex Germany, and various other lots.

COPPER ORES.

Table with columns: Mines, Tons, Price, Mines, Tons, Price. Lists various mines and their respective quantities and prices.

TOTAL PRODUCE.

Table with columns: Mines, Tons, Price. Lists total production for various mines.

Average standard..... £108 13 0 | Average produce ..... 6½ Quantity of ore ..... 3322 tons | Quantity of fine copper, 221 tons 12 cwt. Amount of money ..... £14,942 1 6

LAST SALE.—Average standard..... £105 0 0—Average produce..... 6½ Standard of corresponding sale last month, £104 11 0—Produce, 6¼.

Table with columns: Names, Tons, Amount. Lists companies by whom ores were purchased, including Vivian and Sons, Freeman and Co., Grenfell and Sons, etc.

Copper ores for sale at Tabb's Hotel, Redruth, on Thursday next—Mines and parcels.—Clifford 604—South Caradon 532—Glasgow Caradon 285—Foldeice 246—Phoenix 199—North Trekerby 164—Cradock Moor 85—West Caradon 82—Wheal Rose 76—New Treleigh 67—Tywarthale 12.—Total, 2341 tons.

Copper ores for sale at Tabb's Hotel, Redruth, on Thursday week.—Mines and parcels.—Wheal Seton (Pendarves) 702—West Seton 673—South Crofty 301—Wheal Basset 270—West Toigus 213—East Grenville 165—East Pool 138—East Basset 38—Dolcoath 30.—Total, 2492 tons.

A LARGE AMOUNT OF MONEY being EXPENDED in ADVERTISING in WORTHLESS PUBLICATIONS, C. H. MAY will be HAPPY AFFORD INFORMATION to ADVERTISERS in the SELECTION of the BEST and MOST INFLUENTIAL.

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EXAMPLES OF MODERN STEAM, AIR, AND GAS ENGINES. PARTS I. to VIII., 4to., price 2s. 6d. each.

London: LONGMANS, GREEN, and Co., Paternoster-row.

### Notices to Correspondents.

\* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt: it then forms an accumulating useful work of reference.

LEAD ORE.—After an assay of argenteiferous lead ore has been made, how are we to find its value per ton? For instance, a sample producing 16½ in 20 for lead, and 47 ozs. of silver per ton, how are we to get at its true value per ton?—J. G.: *Lindisfarne*.

STATISTICS OF COPPER.—"H. B." (Dublin).—The information required is not obtainable in a collected form, but could readily be compiled from the particulars published each quarter in the *Mining Journal*.

DRAKE WALLS.—The shareholders in this mine, after having been kept entirely in the dark as to the state of the accounts for 18 months, are now called upon to pay an unreasonably heavy call, and one which was quite unexpected. I should like to hear from some one who is able to communicate information in explanation; otherwise it would appear that the managers must have had some private reasons for the course they have thought proper to adopt.—A SHAREHOLDER.

CENTRAL SNAILBEACH (Salop).—One of your correspondents, signing himself "A Shareholder," some weeks ago asked what has become of this once promising mine? Well he might, and may do so still; but my object at present is not to answer the questions he asked, but to invite him, and every other shareholder, to be sure to attend the next meeting, if they put any value on their shares. Questions will then be raised which every shareholder is deeply interested in. I still have every confidence in the sett, which, in my opinion, will be a good mine—for the present, or a future partly new proprietary.—ANOTHER SHAREHOLDER.

## THE MINING JOURNAL, Railway and Commercial Gazette.

LONDON, JANUARY 23, 1869.

### ENGLISH COAL AND ARTIFICIAL FUEL.

The official reports of the International Jury of the Havre Exposition, just issued, contains some interesting facts respecting the exhibits of coal and cognate matters. It seems that the exhibitors represent only the productions of comparatively few English mines in Cardiff, Newcastle, Yorkshire, Glasgow, and other places; yet they appear to have comprised samples of all the principal qualities sent into the market, whether for marine, factory, or locomotive purposes, or for the manufacture of gas or coke. From the fact that the principal object of the promoters of the Havre Exhibition was the development of the industries identified with shipbuilding and maritime commerce, it is to be regretted that the very favourable opportunity for making their products generally known was not availed of by a much larger number of British colliery owners, more especially as the awards appear to have been made to all who displayed any marked desire to add to the attractions of the exhibition, although the coal might not have been of so good a quality as could be wished; indeed, the quality of the coal appears to have been less considered than the quantity of coal sent into the market from the particular mine, a gold medal being given for coal which the jurors state "does not appear to be of the first quality," whilst only silver medals are awarded for coals which the same jurors describe as "remarkable for their purity, brilliancy, and the amount of calorific which they yield." In the same way a "diplôme d'honneur" is awarded to a mine from which 200,000 tons are annually raised, whilst the adjoining mine, "the coal from which is almost identical" with it, and from which 150,000 tons are annually raised, receives only a silver medal. As considerable dissatisfaction is naturally felt at such discrepancies as these, it is here proposed to give a brief notice of the several mines in the district chiefly affected, in order that their merits may be more fully known to consumers. The most convenient method of dealing with them will be first to give the award of the jury and then a brief sketch of some of the collieries.

CARDIFF COAL.—The superiority of the Cardiff coal from an economic point of view, as regards consumption, specific gravity, stowage, and absence of smoke (considerations of the highest importance in Transatlantic Steam Navigation) determined the jury to propose that a "diplôme d'honneur" should be presented to a proprietor of one of the mines of that district. The coal exhibited from WAYNE'S Merthyr Mine, brilliant in appearance, long in the vein, and almost pure, attracted the attention of the jury, who were equally struck with the fact that a block of coal from this mine, sent to Havre many years since, is still perfectly preserved, and to be seen at the Exhibition itself. This is the oldest mine in the Aberdare district; its annual production is 200,000 tons, 1200 men are employed at the mines, and the present price, free at Cardiff, is 10s. to 11s. per ton. Looking at the superiority of this coal for steam-vessels the jury awarded a "diplôme d'honneur." Messrs. WAYNE and Co. were the pioneers of the Welsh smokeless steam coal trade, and were the first to export coals at Cardiff from the Aberdare district. The coal is largely used by the English, French, Spanish, Italian, and other Governments for their steam navy, and also by many steam-ship companies. Messrs. WAYNE commenced 40 years ago working the "9-ft. seam," which at that time was considered the best smokeless coal, and for many years shipped nothing else, thereby leaving the "upper 4-ft." unworked. Most of the collieries have been opened on the upper 4-ft., being the first stratum of any value, and, in consequence of continuous working, this seam is in many collieries already exhausted. From the above facts, and judicious working, Messrs. WAYNE and Co. are still in possession of this "upper 4-ft.," and are thus in a position to continue shipping from this and other seams in such proportions as have been found by experience to give the best results, particularly by exportation. The proprietors of the BULLFA MINE were awarded a silver medal, the coal from it being almost identical with the above-named mine, although the extent of the workings is not so great. The annual amount of coal extracted is 150,000 tons, and the number of persons employed 540. The Bullfa coal is furnished exclusively to the General Transatlantic Steam-ship Company, whose vessels have made, on the average, the shortest passages known between Europe and America. It is known in the market as "Marine Merthyr," and is generally considered of unsurpassed quality, and was supplied to the British Government for the great naval review at Spithead, and it was almost the only coal which gave no smoke.

PORTHCRAWL COAL.—The coal shipped at Porthcawl is almost exclusively that of Messrs. JOHN BROGDEN and SONS, to whom the jury of the Havre Exposition awarded a gold medal. The mines are in what is known as the Llynvi Valley district. The jury state that they award a gold medal to the firm in question, "whose coal is principally adapted for locomotives, and who have exhibited numerous favourable certificates from railway companies, although the coal does not appear to be of first quality. However, looking at the great extent of their establishment, and the creation by them of a port bearing the name of Porthcawl, and of a railway 40 miles long with the view to facilitate the transport of 1,800,000 tons of coal extracted annually from 18 pits, the amount of wages paid to the numerous staff employed by them amounting to 12,000,000 per week, mines, railways, &c., included; and these circumstances are considered fully to justify the decision of the jury." In the Tondri Colliery, leased by Messrs. BROGDEN, the Cribber and 5-ft. seams are worked by a "slip," driven down about 500 yards in the 5-ft. seam, 2 dip, 1 in 2. The section of minerals at Tondri shows two seams of coal in the Bettwa series; below these the Pennant rocks, containing seven seams of coal, none of which prove of workable quality; and the lower series, from the Small vein to the Cribberfuch, contains 20 beds of coal, and several beds of ironstone. The coal is got by pillar and stall in these seams, the roof being usually weak, requiring timber largely; floors also soft, and swell up. These collieries are all worked

with safety-lamps. The Cribber seam, at Tondri, is excellent house coal, and produces coke of superior quality; it is effectually screened for these purposes. The water is pumped at Velin-vach Pits, where, until lately, coal was drawn; one pit 100 yards deep, another 150 yards deep. A pumping-engine is placed at the bottom of the latter pit, having two 8-inch pumps, each double-acting, with a plunger. There are no rods, the water being forced up a 7-in. main-pipe, 140 yards long from the pump to its delivery at the off-take drift; the pressure of water at the bottom of this column would be 182 lbs. per square inch. An engine (direct-acting) has been erected on the top of the pit 100 yards deep, which works a 12-in. lift 90 yards long; the engine at the bottom is only required now to force the water 50 yards up to the shallow pit's bottom. A water-wheel is also in operation to pump water from the upper springs. A large pumping-engine has lately been erected at the top of the slip, to follow down with the pumps and rods as the slip is extended. Tondri falls (NAMYTH'S), 17½ ft. diameter, 4 ft. wide, 8 arms, 16 vanes, 3½ ft. deep, central opening 7 ft. diameter; air in circulation, 30,000 cubic feet per minute, with 65 in. water-gauge, equal to a pressure of 3-38 lbs. per square foot—3-horse power. Engine vertical, direct-acting, 20 in. diameter, 2-ft. stroke, 58 revolutions per minute, 10 lbs. steam-pressure—21-horse power, equal to one-seventh, or 14 per cent, of the power utilised. No other collieries are yet opened to the eastward of Tondri for a long distance on far as they have been proved, with the exception of one speculation in that quarter. Two blast-furnaces in operation at Tondri, about 50 ft. high, and extensive rolling-mills; the former utilise the small coal produced at the collieries after being coked, and the mills the rubble and inferior coal. At the Ty-with Colliery the Victoria, Yard, and Cae-Deid seams got by level, about 300 tons per day, lowered by self-acting inclines to the Llynvi Railway sidings. Long wall method of getting coal is preferred where it can be carried out; in other cases stall and pillar method is resorted to. An engine is erected near the mouth of the lower level, which hauls in and out by a main and tail rope; two drums, 6 ft. diameter; two horizontal cylinders, 15 in. diameter, 16-in. stroke; motion by spur-wheels reduced 3 to 1; length of main-rod plane, 1400 yards. The tail rope is used only on the main road; there are two short branches to the left and one to the right of the main road; the empty wagons are drawn into these branches by horses with the main rope; the latter pulls the wagons out, and the tail-rope is attached where it was knocked off. A blowing-engine erected near this hauling-engine, 12-in. steam-cylinder, 10-in. air-cylinder, 3 ft. stroke; 1500 yards of 2½ and 2-inch gas-pipe, carry compressed air to the Donisthorpe colliery cutting machines in the Cae-Deid seam. At Cwm-du Colliery the Victoria seam, 3 ft. 2 in. in the yard seam, 3 ft. thick, are worked by two levels, about 200 tons per day; both produce good house coal, and blackband has been worked to a great extent. The ventilation at Ty-with and Cwm-du is effected by small furnaces and chimneys placed on the surface; little fire-damp is produced. There are large and effective screens at each place for separating the large and small coal. At the Garth Colliery two pits are sunk 14 and 12 ft. in diameter, 140 yards deep to the Cae-Deid seam, which produces a good steam coal; depth, 60 yards to Victoria, 90 yards to Cae-Deid seam. At sinking these pits a portable engine, with 16-horse power, raised water from the Victoria seam at the large pit; below this the water was raised by the winding-engine and tubs. The second pit was sunk altogether by a portable engine and tubs, raising both water and stones. The winding-engine erected at the 14-ft. pit is a single horizontal cylinder. The pumping-engine, direct-acting, placed on the same pit, works two sets of pumps, high set forcing 15 inch diameter, 90 yards long; lower set lifting 12 in. diameter, 50 yards long. The pit is fitted up with wood guides; two steel cages, with Owen's safety-catches, are raised on the shaft through the engine, with 16-horse power, raised water from the Victoria seam at the large pit; below this the water was raised by the winding-engine and tubs, raising both water and stones. The winding-engine erected at the 14-ft. pit is a single horizontal cylinder. 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the practice in vogue there has been shown to be attended with so great risk.

We cannot close our observations upon this subject without expressing the great satisfaction we feel at the manner in which the people in and about Wigan have come forward to supplement the liberality of the colliery proprietors themselves in their efforts to contribute to the necessities of the poor widows and orphans, and other dependents, who have been bereft of support by the recent calamities.

THE IRONMASTERS, AND THE RAILWAY CARRIERS.

Complaints continue to reach us from ironmasters and ironfounders in South Staffordshire of the high proportionate charges made by the railway companies for the carriage of their wares from their works to the ports.

By rail, from Middlesborough, Stockton, and Darlington:— To Liverpool (shipment) 10s. 10d. (town) 15s. per ton. To Newcastle-on-Tyne 4s. 2d.

By water, from Middlesborough and Stockton:— To London 8s. 6d. per ton To Aberdeen 11s. 0d. per ton To Edinburgh 5 0

It is maintained in South Staffordshire that independently of any other comparative rates the freightage to London is too high. It cannot, of course, be argued that railways can carry as cheaply as coasting steamers; but the fact of the Middlesborough men being able to get to London at a freightage so much lower than is available to the South Staffordshire masters increases the uneasiness of the latter in relation to their traffic with the metropolitan port.

Turning to the ports in the opposite direction, we see the penalty still subsisting; and as far as the struggle relates to sea against land carriage, per se, there can be no complaint. Yet, in the matter of degree there may be some room for enquiry here also.

The enquiry naturally arises in the mind of the reader why it is that a number of men who are, by common consent, set down as in every respect apt in the transaction of business should allow such orders to pass them? To this the only explanation at present afforded is that the terms of a compact into which a few of the railway companies have entered preclude any alteration by which the freightage from South Staffordshire is made the same to Chester port as to Liverpool port.

The ironfounders throughout South Staffordshire and East Worcestershire aver that very serious damage is being done to their trade by railway companies. Branches of their industry are mentioned to us which they maintain have, by the high prices of the prevailing locomotion, been driven from their district.

The Ironmasters' Association have recently again taken up the matter of railway charges, and for two or three quarters a special committee was in existence. The members at that committee, either jointly or severally, are understood to have had interviews with leading directors of the London and North-Western and Great Western Companies; and at the Michaelmas Preliminary Meeting, in Birmingham, they reported that they had not been successful in inducing the companies to make any alteration in their charges.

Such a result has not, as may be imagined, been received with satisfaction.

It has tended more to the deepening of the feeling of disappointment at the working of the railway system than had previously existed, and resumed efforts to remove existing inequality are being inaugurated. It is maintained that the representations which have been made to the railway companies have not possessed that combined character which is necessary to success, and that, therefore, the carriers have been unable to distinguish complaints of an individual from those of a district class.

Till this course has been pursued, the project of a canal north and south from Birmingham, that would enable manufacturers to send their goods by steam-tug, which has been on the tapis ever since the railway charges have been felt to be onerous, may well be postponed. The railway companies are wise in encouraging the coal trade to send by land to London, and we cannot but approve of the determination of the London and North-Western to build a depot at a cost, if necessary, of 25,000£.

MINING IN THE HIMALAYA MOUNTAINS.

We have great pleasure in calling attention to the progress making in the undertaking our old correspondent is at present engaged in carrying out. We have received a communication from Mr. HENWOOD, in which he says the lodes in the Himalaya Mountains are numerous and of large size, but never yet developed sufficiently to form a decided opinion of their being productive at great depths, though the quantities of rich gossans in the backs would warrant the expectation; this, however, matters but little for the present generation, as many years must elapse ere the backs of the lodes can be wrought out.

Labour he describes as abundant and cheap, the natives apt, but dreadfully indolent, except when driven by strict supervision or piecework; the greatest drawback being the want of good blacksmiths, and the dearth of iron and steel. Upwards of 100 men are now being continually employed. This number will be more than doubled in a short time, as soon as the necessary preliminary works can be executed and levels driven.

At another of the mines, called the Baghathoo Mine, after only two months' working, by two men, 10 tons of rich ore were broken, at a cost of not more than 50s. English money for labour. Two other levels have been commenced on this lode, and ore is being raised from all of them. Large orders have been sent home for tools, machinery, and appliances, those already sent out being wholly inadequate to the extensive requirements of the undertaking.

He describes the scenery around the Subhathoo Mines as grand in the extreme, the climate delightful (except for a few weeks during the rainy season), admirably adapted for European constitutions, the great elevation rendering the air cool and bracing. Only during the very hottest season is any kind of inconvenience felt. He and his family enjoy perfect health; the want of European society, however, is a source of discomfort. Provisions of all kinds are cheap, except imported beer, spirits, wines, &c.

Our old friend writes in good spirits, and appears to like the change well. We believe he intends to procure more European assistance as soon as necessary. When the works are further advanced he promises to write us again, giving further particulars. The quotation from the India paper certainly to a degree supports his views, and we cordially wish the company and our old friend the success their attempt so richly deserves.

THE CHANNEL BRIDGE.—We are glad to perceive that Mr. Boutet's project for a railway-bridge across the Straits of Dover, to meet the long-existing demand for increased facilities for continental communication is steadily progressing in England. We may congratulate ourselves on having been the first to notice its claims to attention, founded on what we had observed in the French papers, showing the growing interest it has been attracting in Paris for some time past.

one; a little while ago the man would have been called mad who talked of a tunnel or a bridge between England and France, now the thing is known to be practicable either way, and by-and-by it will be done as nicely as there is a bridge at Putney, and a tunnel at Wapping."

MINING, METALS, AND MINERALS—PATENT MATTERS.

Patent Agent and Adviser, Memb. Soc. Arts, Assoc. Soc. Eng.

Mr. R. YOUNG, of Glasgow, engineer, has specified a patent relating to dressing millstones and apparatus used therefor. Two modes of using diamonds and such like hard stones are in use, or have been proposed, for dressing millstones, and whilst by one mode a fine or minute groove is produced by giving the diamond a simple rectilinear motion along the surface of the stone, by the other mode a similar groove is made by imparting a rapid rotation to the diamond whilst it is moved along the stone.

Messrs. F. E. BLACKET-BEAUMONT, of the Garrick Club, captain in the Royal Engineers, and C. J. APPELEY, engineer, of Southwark, have specified a joint patent relating to apparatus for drilling rock and stone for blasting and other purposes. According to this invention the apparatus is so arranged that the feed may be positive so long as the diamond or gem cutters meet with no more resistance than they can safely be allowed to overcome; but when the resistance exceeds this amount then a spring, which forms the abutment for the drill, yields slightly, and in so doing separates the feed mechanism from the driving gear.

Among recent applications for patents may be mentioned the following:—J. T. SMITH, of Barrow-in-Furness, Lancaster, manager of iron works, converting vessels used in the manufacture of iron and steel. W. TILSON, of Great George-street, Westminster, and W. WHEELDON, of Westminster Bridge-road, Lambeth, engineer, apparatus for facilitating the getting of coal, stone, and other minerals. E. CRADDOCK, of Camberwell New-road, Surrey, engineer, a portable punch for punching metals. A. H. A. DURANT, of Shepherd's-bush, late captain in Her Majesty's service, manufacture of oil from castor and other oleaginous seeds and berries.

REPORT FROM NORTHUMBERLAND AND DURHAM.

JAN. 21.—The Coal and Coke Trades, on the whole, are still devoid of animation; a little improvement may be noticed in some branches, especially in the coke and gas coal, but still generally there is a lamentable want of activity. The Shipbuilding and Iron Trades are, however, improving, and an increased demand for coal and coke must follow. At Messrs. Hawks and Co., Gateshead, some large orders have been received for bridges and railway works in India.

The drainage of the Tyne collieries is still persevered with in the most determined manner, and when the machinery now preparing, which is of the most gigantic character, is got to work, there is little doubt that the arduous and important task set before the directors of the company will be accomplished. Some very large rams, intended to work with 12-ft. stroke, are preparing at the works of Messrs. Abbot, in Gateshead, and when they are got to work the progress downwards is expected to be rapid and decided. As the Cornish engine recently erected at Hebburn is doing good work, the quantity to be lifted at the main station at Wallsend is reduced in proportion.

REPORT FROM SCOTLAND.

JAN. 20.—It is pleasing to record, amid the concurrent calls of depression of trade which is being rung in our ears, that several outed furnaces are to be put into immediate blast. Messrs. Merry and Cuninghame have already in operation their only extinguished one at Carnbroe; and Dixon's Trustees have arranged to put into immediate blast their three large furnaces at Govan, which have been unkindled for nearly a couple of years. Others are also reported, but not definitely. These will engage the labour of a few hundreds of artificers and labourers of various grades, and will be of some advantage to the districts in which these works are situated.

population of the world, there were 20 lbs. weight allowed to each individual. The three countries which stood highest in the consumption of iron were France, America, and Great Britain. The consumption in France was 69½ lbs. per head, in America 100 lbs. per head, and in Great Britain 189 lbs. per head.

The price of Coal in this market is, if anything, weaker, and reductions from quotations are readily made to secure orders of any magnitude. The shipments for the week only make an aggregate of 13,810 tons, against 17,710 tons in the corresponding week of last year, although shipping quotations are as low as 5s. 9d. to 7s. a ton, f.o.b. here. Burnt coal, for steamers, 10s. a ton; Overton Canal (of which there is only a limited supply), 31s.; Leshmahagow, 28s.; inferior gas coal, 14s. to 20s. These prices show that it will be next to impossible to long delay a reduction in miners' wages, and a rate of 3s. 6d. a-day will, it is feared, have to be submitted to. To prepare for this, the miners of the Wishaw district met in the Theatre there, and unanimously resolved—

"That in the event of any of the employers in this locality giving notice of a reduction of wages, a mass meeting be called of the whole district, and that there be a holiday held on the day of the meeting, for the purpose of devising measures to give all the resistance in their power to said reduction."

This meeting was followed by a conference here on Monday, at which it was stated that the Secretary of State for the Home Department intended as soon as possible after the meeting of Parliament to introduce a Bill for the amendment and alteration of the law respecting the regulation and inspection of mines, the education of miners' children, &c., founded on the report of the Select Committee on the subject of mines. It was also proposed to form a national association of miners of all classes connected with Scotland, having a central society or council, with a branch in each of the districts in Scotland in connection with the central council. It was also agreed that a general conference of representatives from all the districts of Scotland should be held in Glasgow on Monday, Feb. 1, to consider the proposal.

The shipbuilding on the Clyde is in a prosperous condition, several contracts of importance having been secured during the week. The only launch to notice is that of the new iron bark, *Caroline*, 700 tons, A 1 at Lloyd's, and 20 years in Liverpool Registry. The vessel has been built to the order of a French firm, and is to be employed trading between France and Valparaiso.

**MAGNITUDE OF THE RAILWAY INTEREST.**—At the annual festival of the Glasgow section of the employees of the Caledonian Railway (Sir Thomas Gladstone, Bart., of Fasque, in the chair), the Chairman stated, on "high authority," that the "property expended on railways in this country amounted now to 502,000,000; that the traffic of goods and minerals during last year amounted to 146,000,000 tons; and that the number of passengers conveyed last year by the railways of this country was 28,000,000. (Applause.) An important addition to these statistics is this, that the average death of passengers was only one in 15,000,000 so conveyed. (Applause.) The magnitude of the railway undertakings of this country, therefore, can hardly be exaggerated.

#### REPORT FROM DERBYSHIRE AND YORKSHIRE.

JAN. 21.—So far the new year has not materially changed the state of the Iron Trade throughout Derbyshire, which is not what can be called active. Pipes and general castings are in moderate request, but the demand for rails is not at all brisk. On the Erewash Valley the large iron works are kept moderately going. The works of Heaton and Co. (Limited) are now doing well, and the discussion as to the relative merits of the Bessemer and Heaton processes has led to a closer investigation into the subject by those interested in the manufacture of iron and steel. From what we have heard from those who have studied the matter in all its bearings, there appears every probability of Mr. Heaton's system being extensively adopted. There is a very fair business being done in Coal for the London and southern markets, but the Leicestershire coalowners are pushing trade in the same direction, and are likely to cause a division of the business which has hitherto been enjoyed by the Derbyshire owners. Some of the latter, however, during the past week have offered their produce at a reduction on late prices, so that it is not unlikely but what we are seeing the commencement of a keen competition for the metropolitan trade, and in which the principal lines of railway will have a deep interest. Coke continues in good request for Lincolnshire and the local works.

The iron works in South Yorkshire are now kept fairly going, and although some of the foundries are not so busy, yet there is a fair demand for rails, plates, and sheets. There is no improvement in the demand for coal, and masters still complain of the position in which they are placed by the existing rates by railway. The tonnage going to London is still small, so that the loss to the railway companies is considerable. It is now stated that the London and North-Western are meeting the traffic for the Wigan and St. Helen's districts, so as to allow of their competing with the Midland and other lines. The Great Northern, so far, has exhibited no sign of acceding to the request of the coalowners who are dependent on their line for the transit of their coal to London. However, with the several lines of railway now competing for the metropolitan and southern trades, and with the position which the Midland will shortly be in for very largely increasing its present mineral carriage, an alteration will have to take place if the Great Northern intends to hold its own. The business doing by the Manchester, Sheffield, and Lincolnshire Railway to the cotton districts of Lancashire has been so small, and from the same cause as that which has occasioned such a falling off in the London trade, that the coalowners on the line have endeavoured to get the rate reduced. On Tuesday a number of them, including Mr. E. Booth, Mr. Widdison, Mr. A. Lawton, and Mr. G. Greaves, waited on Mr. Ormerod, the newly-appointed traffic manager, at his office at the London-road Station, Manchester, and laid before him the position they were placed in. They showed by the rates paid into several of the towns where there are large manufactories by other lines, that they were virtually out of the markets into which they formerly done a good trade, notwithstanding that they had reduced their prices to a point which was far from remunerative. After listening to the statement made by the gentlemen who had brought the subject under his notice, he promised that it should have every consideration, and be placed before the directors. It is, therefore, expected that some modification of the rate will take place, otherwise some of the collieries will be all but closed. Steam Coal is only in moderate request for Grimsby, and there is no improvement in the business doing into Hull. At the new collieries at Royston and Newhall siding are about to be put in on the Midland line, and from both of which it is intended to send some of the coal raised to the London market. There is a moderately good demand for Gole, but the collieries in the neighbourhood of Wakefield, favoured by the rate of the Aire and Calder Canal Company, which by the drawback allowed is better than that of the River Don Company, are absorbing part of the trade which has hitherto come into the Barnsley district.

There was an explosion recently at the Park Mill Colliery, near Wakefield, and four men were severely burned. The Government Inspector satisfied himself, from the enquiries he subsequently made, that gross irregularities had been allowed in the working of the pit, and on Friday the proprietor (Mr. E. Stringer) and three of his servants were summoned before the magistrates at Wakefield, and for their neglect were fined.

**MINERS' ACCIDENT FUND FOR SOUTH-WEST LANCASHIRE.**—A public meeting, convened by the secretary for the district of the Miners' National Association, was held, on Monday, in the public Hall, Wigan, to take into consideration the propriety of establishing a permanent fund for the relief of sufferers by fatal accidents in mines, whether individual cases or cases by which a large number of persons may be affected. The chair was occupied by Mr. T. Aspinall, of Westhoughton, miners' agent. The principal speaker was Mr. W. Pickard, of Wigan, miners' agent. In the course of his remarks he advocated the formation of a fund to which the mine owners and coalmasters, the workmen, and the public, should contribute. He held that the money should be raised independent of any trade organisation for other purposes, and that the management should not be controlled by any Union on the part of either masters or men. A committee was appointed to carry out the objects of the meeting.

#### COLLIERY MANAGEMENT.

At the close of the coroner's enquiry into the Haydock colliery explosion on Thursday evening, Mr. Peter Higson, Government Inspector of coal mines, made the following important observations:—

"There is a practice going on, and it is not confined to one colliery alone, but is almost general throughout the country, of carrying air into working places too far behind brattice—too far, almost, when you exceed 15 or 20 yards. I think that is quite far enough, and, in some fiery mines, too far. I was very much pleased to hear that Mr. Chadwick intends to have double roads to get at one portion of the mine, and I hope he will cut through at proper distances, and make proper stoppings on all occasions hereafter. Brattice is so liable to get disarranged by the moving of tubs, and so much depends on its being perfectly fixed—a very small fall of roof is often sufficient to throw a cloth down—that it is always desirable to avoid a too extensive use of brattice. Moreover, the force of air behind brattice cloth is much greater when you have your reservoir of air close at hand than when the supply is 100 yards distant. I think these objections to the use of brattice cloth are undeniable."

The Coroner: "Do you think there has been above a reasonable length here?" Mr. Peter Higson: "Well, I think that it has been rather long in places. In a piece of coal like this the very best mode of opening it out is to drive a pair of levels, and then cut openings between them. The other system very often leads to damage, and there is no doubt it has led to some of our latest casualties in almost every part of England, especially in this part of the country. I hope it will be discontinued. There is not a great deal of skill required in ventilating a coal mine. It is simply carrying the air with you as you go on. Care is the great thing. As mines are now worked, the management is not centred in any one man, but it is like a long chain—one link following another; and if one link in that chain becomes defective the whole management breaks down. If the fireman neglects his duty, if he omits to examine a place, and lets a man fire shots and an explosion follows, then there is a defective link. If a collier breaks a rule, or does anything wrong, then there is another defective link. The basis of my statement is this—that we ought to see that our underground operations are so laid out and conducted as to give these men the least possible chance of doing mischief either to themselves or others. I say this is done more effectively

and that it is possible to get more coal on the system I have laid down than on any other. I suppose the immediate result may not be so good, but the ultimate will be better. I think it is very desirable that you (addressing Mr. Chadwick, the manager) should read the rules to the firemen and men regularly. It is a most proper thing to do, and very important. It is not unlikely you may have men in your employ whose knowledge is obtained from experience alone, frequently from the painful experience of such accidents as this; and I think in very large collieries the rules should be read to these men at least once a fortnight or a month, and that you should have the firemen before you every day in your life, and teach them, and lecture them, and caution them. You cannot possibly caution them too much. They must be kept alive by warnings and cautions. The same course of conduct must be adopted by every colliery manager, if he means to steer clear of these casualties. You must bear in mind that firemen are men drawn from the ranks. They have great sympathy for the people they have left behind them. They will not tell you tales unless you follow them closely up. They are slow to injure the workpeople, and they have not the same authority and power over these workmen as yourself would have, because workmen can take more freedom with them and do not dread them so much. Therefore, the oftener you can show yourself the better. This is one of the difficulties we have to contend with. You know firemen are only trained by experience, and experience is a very slow progress of training. We are going at a rapid pace with casualties, and we gain our experience very slowly."

To PETER HIGSON, Esq., Government Inspector of Mines.

SIR,—In the *Times* of to-day we note under this heading some important observations made by you at the close of the coroner's enquiry into the Haydock colliery explosion, and particularly your remarks on the use of brattice cloth. There can be no doubt the practice of endeavouring to carry air into working places too far behind brattice is an evil, and we are not surprised that you should attribute some of our latest casualties to that cause. You remark that "much depends upon its being perfectly fixed," and that "the force of air is much greater when you have your reservoir of air close at hand, than when the supply is a hundred yards distant;" and you add, "I think, these objections to the use of brattice cloth are undeniable."

We are anxious that no misapprehension should arise amongst owners and managers of collieries, permit us, in reference to the objections taken by you, to say that efficient ventilation very much depends on the quality and make of cloth used to convey the air to working places in coal mines. The introduction of brattice cloth into most of the collieries throughout the kingdom and abroad having originated with us, we are desirous of stating a few facts bearing on the subject: 12 years ago the use of brattice cloth was comparatively unknown, and considerable difficulty was experienced in overcoming the reluctance of mining engineers to abandon wooden brattice for cloth; but amongst the first to adopt our cloth were some of the most eminent colliery owners and managers. At that time nothing was made or offered by us but a really good, close canvas, properly prepared, and rendered perfectly air-tight.

When the terrible catastrophe occurred at Hartley Colliery in 1862, where more than 200 lives were sacrificed, the late Mr. William Coulson—perhaps the most experienced pit sinker in the world—gave the following testimony of the value of this cloth:—"I have to thank you for the dispatch which your brattice cloth afforded me in ventilating the shaft at Hartley Colliery against the insidious gas which we had to contend with when endeavouring to reach the unfortunate miners who were buried alive in that colliery. Your brattice cloth was brought from the neighbouring collieries in the district. It did not only save us time in accomplishing the business of recovering the bodies of the poor sufferers, but also a great deal of expense, as the pumps and spears were lying across the shaft in every direction, so much so that the ropes we had to work with had to wind around them before reaching the bottom; therefore, the usual wooden brattice would have been very difficult to get in, and would have occupied a much longer period. I may also state that the brattice cloth ventilated the shaft and Yards so effectually, that what we reached the bodies they were cold, and to bank without causing us any stop or unpleasantness for want of ventilation."

We could supply you with many notable instances in which our cloth has rendered vital service, but we need only remind you that at the recent explosion at Haydock Colliery, on Dec. 30, the air was so effectually restored within one hour after the accident, that the explorers were enabled to search for the unfortunate victims without difficulty, and this was effected by means of several hundred yards of 6-foot brattice cloth, supplied from our works.

You say: "There is not a great deal of skill required in ventilating a coal mine," and we presume a similar opinion exists as to the manufacture of brattice cloth; and at the present moment, and for some time back, especially in this country, people are selling what they are pleased to call "brattice cloth," and the competition in this article has become something like that in pit lamps, miscalled safety-lamps, to which reference is made by your colleague Mr. Dickinson, of the East Lancashire district, in his last report. The result of this competition is that cloth is sold of the commonest description, and so poor in quality and so badly made, that it would be as easy to carry the air forward with wire-netting, and this will account for the loss of air, when it has to be carried any distance. Instead of the air going forward, it passes through the interstices of the cloth, and thus the working becomes fouled. Another matter which ought to be widely known is that the cloth is now offered as "brattice," steeped or coated with petroleum, creosote, gas-tar, asphaltum, and other combustibles of an equally objectionable character, and some even liable to spontaneous ignition.

Surely the fearful experience we have had of late years should warn everyone against such a practice, and that we may prevent every disaster to life and property; and we hesitate not in saying that, with the knowledge of this, any catastrophe from such a cause cannot be designated "an accident."

At the International Exhibition in London, 1862, the award of the jury was given to our "brattice cloth" "for efficiency and economy, especially in cases of emergency;" and since that time we have endeavoured to reduce any risk to a minimum by rendering it non-inflammable, when so required.

Denton and West Gorton Works, Manchester. ELLIS LEVER AND CO.

#### REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

JAN. 21.—There is no new feature to report in the state of the Iron Trade in Staffordshire. There appears to be a slight increase in the orders to hand, but a considerable number of the works—certainly more than half—are only in partial operation; and the brisk trade, which seems generally expected, is yet only in expectation. Some, however, of the leading houses are well supplied with orders. The works are better employed in North Staffordshire than in the South, however; but in neither is the trade as yet decidedly active.

The project of an Exhibition of the Industrial Products of South Staffordshire, in Wolverhampton, is now assuming a definite shape. A meeting was held at Wolverhampton, on Wednesday, at which the Earl of Lichfield presided, the Earl of Dartmouth being also present, when reports were received, which showed that the building necessary to afford accommodation to supplement that furnished by a large house taken for the purpose, was proceeding rapidly; that considerable loans of general works of art were promised from various quarters; and Mr. Wallis attended from the South Kensington Museum, to offer contributions from that institution, to add to the attractions of the Exhibition. It was also stated that a considerable guarantee fund had been subscribed, and so far all seemed to promise well for the project. The only question—and it is a vital one—is how far the local manufacturers will be induced to send their productions, and on this point the information did not appear as complete as was desirable. The feeling of producers of goods of an interesting character is by no means unanimous in approval of these exhibitions. The local hardware manufacturers, which would interest miscellaneous visitors, are not numerous, and beyond japanned goods, and curiosities in locks, and some few other branches, people would take little interest in examining specimens of articles of everyday use. If the makers of articles in which considerable taste in design and skill in workmanship is displayed, show their goods, they must, of course, exhibit their choicest and newest specimens, and must show them in the midst of people who, understanding their construction, can readily copy them. Hence an exhibition at home is shrunk from by many. Again, the makers must compete with one another. Those who feel they cannot hope to be first are unwilling to be second; the cost of getting up superior specimens is considerable; and, on the whole, a good deal of persuasion will be necessary to secure a large and really attractive exhibition of local manufactures.

A dispute between Messrs. Wright and North and the miners they employed at a thick coal colliery, at Rowley Regis, is not yet terminated. The employers proposed to pay the men by the ton, and to get the coal in two divisions, but the men object to the rate, which they say is not equal to that paid by the ordinary method; and one objection is that they would have to depend upon the gauge of the boats, which certainly varies most widely. If it is proposed to calculate the weight raised by the nominal tonnage into boats the men would have real cause for complaint, as it is well known that boats in many instances, nay in almost all, carry very much more than the quantity for which they are gauged. It is true that coal is sold into these boats by the gauge, but it is a disgrace to the district that so absurd and unequal a system is allowed to prevail, and certainly the men ought not to suffer by it. It must not, however, be assumed that this representation is well founded.

The new Act for enforcing the observance of contracts between masters and men by no means always works in favour of the men in whose interest the alterations were made. Men and masters are now placed in an equal position, and the employer proceeds against a negligent workman, not to punish him for negligence, but virtually to recover damages for injury suffered. In a case at the Wednesbury Police Court, on Tuesday, Simeon Holland, an engineer at the Moxley Ironworks of Mr. David Rose, was charged with having allowed a boiler, of which he was in charge, to be without water, whilst the fire was burning underneath it, and compensation was claimed to the amount of 40l. A claim was also made by Holland against Mr. Rose for 11. 10s., wages alleged to be due. He neglected to see that the blow-cock, affixed to the boiler, was properly closed before firing, the result was that the boiler was emptied of water, and the plates became excessively heated. It had been thoroughly repaired a few days before, and the injury done by firing when it was without water involved an expenditure of 40l. for further repairs. The defendant attributed the opening of the cock to some person interfering without his knowledge, but the jury were of opinion that the defendant was the first to be fired, and received a general good character, and the amount claimed was reduced to 10l.,

with the alternative of two months' imprisonment, to which it was understood he would have to submit. The claim by him for wages due was dismissed.

A young man was killed, on Friday night, at the Birchhills Colliery, near Walsall, by falling into the sump as he was about to be raised from the bottom of the shaft. The sump, it appeared, was uncovered before the man was raised for the purpose of the water being pumped out. According to the evidence of two of the men of the deceased, finding that nine men were to go into the skip at once objected to the doggy that the number was too many, and it does exceed what the special rules allow. They said that the doggy on the objection being made scowled at the deceased, who got excited, and he slipped and fell into the sump, and could not be got out for an hour, when he was dead. They further stated that the doggy had caused the sump to be uncovered before they went up, that he might go with them. The strangest part of the case was, however, the doggy's defence. He said that he did not force or urge the deceased to get upon the skip, but that he merely told him to take hold and be careful. He was aware at the time that the sump was uncovered, but he was not aware that the rules required it to be covered while the men were going up. It was uncovered nearly every night to allow of the water being pumped out, and Mr. Williams had been present when the men went up while it was uncovered. The special rules had never been read over to him or given to him, nor had he ever seen a copy about the colliery. The coroner then adjourned the enquiry until Monday, and intimates that not improbably it would be found necessary to request the attendance of the Government Inspector.

#### REPORT FROM MONMOUTH AND SOUTH WALES.

JAN. 21.—The present position of the Iron Trade of South Wales is considered encouraging, the hands engaged at the principal iron-making establishments now working a fair average time, and there seems a probability of something like former activity being witnessed at the rail-mills before many months have elapsed, some good orders having been lately received, and several large engagements are also under negotiation, the majority of which are likely to fall into the hands of makers in this district. The total exports of iron last month from the South Wales ports amounted to 29,817 tons, and at the present time there is more than double that quantity of rails wanting to be shipped for the United States, South America, and other foreign ports, in addition to which large quantities of bars are about to be sent to the continental markets. Rails are also being manufactured for Russian lines, the northern shipping season commencing in the early part of March, and until its close there is every likelihood of heavy supplies being sent to that country. Indian contracts are again offered, and American advices continue favourable as to future requirements. Pig-iron of the best brands commands an average sale, at full list quotations. The Tin-plate mills in the district are fairly employed, but it is somewhat doubtful whether the advance of 3s. per box, as determined upon at the last meeting, will be obtained for a short time to come.

The Steam Coal Trade will now probably recover in a very short time from the depression which has prevailed for the past two months, a favourable change having taken place in the weather at the latter end of last week, and still continues. Although the wind is not exactly favourable to the vessels bound to the local ports, it is not of that character to prevent their coming up or going down channel. There is a steady increase in the number of arrivals, and as there are several orders on merchants' and shippers' books for the mail packet stations—French, Turkish, and several of the Mediterranean ports—a continuance of fair weather may be looked upon as the only essential requisite to place the steam coal trade in a more satisfactory position than it has lately occupied. Orders from the continental markets are about the average, but from the Turkish and some of the Mediterranean ports enquiries are on the increase. The change in the weather will, it is expected, have an equally favourable effect on the House Coal Trade, the late gales having prevented coasting vessels arriving at the places of shipment, the result of which has been to place a large number of the colliers on little more than half time.

For several weeks past reports of changes in connection with the Tredegar Iron Company, all more or less incorrect, have been circulated, and it has been more than hinted that Mr. Forman, the chief proprietor, was about to retire, in order to give place to a younger man. Rumour in such cases here is often much exaggerated, and this has proved no exception to the rule. It is true that Mr. Forman retires from the London houses with which his name has been associated for more than half a century, but his position as regards the proprietorship of the works will remain the same, and Mr. Fothergill will continue to be managing partner. Mr. Hardy, who for a long period has acted as Mr. Forman's confidential chief, will succeed to the management in London. It has been deemed advisable to divide the duties performed by the late Mr. William Bevan (the underground manager), the colliery workings having become so extensive, and these appointments have been conferred on Mr. Green and Mr. Partick.

The readers of the *Mining Journal* will recollect that some three years ago the proprietors of the Blaiva Works succumbed to their difficulties, and the creditors determined on carrying on the extensive concern under inspection, the gentlemen nominated as inspectors being Mr. Abraham Darby, Ebbw Vale; Mr. G. T. Clark, Dowlais; and Mr. Thomas Gratwick (Bailly and Co.), Newport. It was represented at the time that there was a prospect of the creditors being paid in full in the course of two or three years, but the almost unprecedented depression which followed in the iron trade, and many other untoward circumstances, soon proved the utter hopelessness of the concern ever returning 20s. in the pound to the creditors. The inspectors declared one dividend, of 2s. in the pound, and after carrying on the works for about two years, during which time considerable loss was sustained, the determination was arrived at to close the establishment altogether. The seriousness of such a step as regards the prosperity of the district may be at once realised, from the fact that the works supported a population of about 9000, who, in consequence of the stoppage, had to seek employment elsewhere. Hundreds of houses were vacant in the course of a few weeks, and all classes of property were, as a natural result, seriously depreciated. It has all along, however, been hoped and believed that such a fine property as Blaiva would not be long idle, and it is satisfactory to be able to announce that there is at last a certainty of the re-starting of the works. Negotiations have been in progress for some time between the various parties interested and certain Lancashire capitalists, and the terms of sale have now been so far arranged that it only remains for the usual legal formalities to be gone through to complete the transaction. The announcement cannot fail to give unbounded satisfaction in Monmouthshire and throughout South Wales generally, and, independent of the great local benefits that will ensue from the re-starting of the vast works, it is a proof that capitalists are beginning to regain that confidence in the paying character of the iron trade which prevailed for many years previous to the disaster of 1862.

Mr. W. Glanville, of New House, near Narbeth, Pembrokehire, and formerly for many years flour merchant at Pembroke Dock (says the *Cambria Daily Leader*), devoted a considerable portion of his spare time, to the utmost of his ability, examining the minerals of the geological formation of Pembrokehire for the precious metals, and has at last discovered the existence of both gold and silver, to a considerable extent, in the shape of an argillaceous oxide of those metals.

The arrivals at Swansea include—the T. G. V., from St. Malo, with 130 tons of zinc ore, for Dillwyn and Co.; Jeune Edouard, from Antwerp, with 180 tons of iron ore, to order; Constance de Celise, from Antwerp, with 148 tons of fire-clay, for Swansea Zinc Company; Jewel, from Huelsa, with 320 tons of manganese, for W. H. Tucker; Seville, from Bilbao, with 100 tons of iron ore, for P. Marychurch; Grace, from Carlfort, with 481 tons of zinc ore, for H. Bath and Son; Maud, from Carlfort, with 340 tons of zinc ore, for H. Bath and Son; Georges, from Santander, with 190 tons of iron ore, for H. Bath and Son.

#### GOLD FIELDS OF BENDIGO—COLONY OF VICTORIA—No. III.

By THOMAS CARPENTER, Mining Engineer.

The great mining region of Bendigo contains an area of 215 square miles, which includes the Whroo and the Heathcote (McIvor) gold fields. The Bendigo gold fields proper contain an area of some 160 square miles. It was these large gold fields that produced gold in such unparalleled quantities so soon after the discovery of gold in 1851, and it was these riches that made so many believe they had only to visit this second Ophir, make their obedience before the shrine of the goddess Fortune, win her smiles, and their fortunes would be the reward. The township of Bendigo is now called Sandhurst, it is a large town, second only in importance to Ballarat; it is connected with Melbourne and the River Murray by railway from Melbourne to Sandhurst, a distance of 101 miles, by a double line from Sandhurst to Echuca; the Murray, 46 miles, a single line. These railways are considered the finest of the public works in the colony. The town and surrounding district is populated by some 30,000 people. There are many fine buildings, both private and public; it is lighted with gas, and, like the neighbouring district, it is about to receive a copious supply of water from the River Coliban, a distance of 60 miles, at a cost of 1,000,000. The site of the township occupies a large portion of the valley on which it is built. Since the laying down of the permanent streets and roads they have been all undermined for gold, and even the scrapings and sweepings of these are frequently being washed, paying well for the labour expended. The metal used for making these being either quartz or the quartzose gravel, the chief part of the washed diluvium. The auriferous drift, or diluvium, fills up some eight valleys; seven of these run to the west, and one in the locality of Sailor's Gulley to the east. Back Creek, taking its source from Spring Gulley, at the south of the town, four miles on the east, and joins the Valley of the Bendigo some two miles east of the junction, at which point this valley terminates with the Iron Back, Long Gulley, Californian Gulley, and Eagle Hawk, and are all flanked on their northern and southern sides with slightly undulating slopes,

and are fed with numerous small tributaries, which, like the streams they once supplied, have been of great richness. What a sight must it have been to witness these valleys when being worked by some 150,000 men—men of all countries and all creeds, most earnestly intent on the finding of one substance, and that substance GOLD. Every few square feet or yards had its pit, and a few feet sinking—some 20 feet on an average—would bring the owners to the bed rock schist, where the diluvium reposed. This was sampled by washing a small portion in a tin dish, to tell the results of these trials, and the amount obtained from some of these small claims would be thought fabulous. At this time fortunes were made by the gold diggers. The digger's all, in the majority of cases, at the commencement of his labours was his blanket, his tin can, and panikin. Frequently he had not the wherewithal to purchase his tent, tools (pick, shovel, washing-pan, windlass, and cradle); if his prospects warranted it he could generally get these on credit. Many have made a competency in purchasing the lucky diggers' tools, and re-selling the same to the new comer. Such were the halcyon days of the digger at this period. But a few years terminated the time when so much gold could be got for so little labour and outlay. The tub and the cradle, the appliances in general use for saving gold, are now all but obsolete. Gold was no longer so plentiful, no maiden ground of a similar character. Notwithstanding that many had made and kept their fortunes, there were those who had made and lost them; for whom nothing was left if they continued to search for gold but to re-work the ground over again, and in many instances this has been done twice and thrice.

The appliances used to do this were the circular horse pug-mill of the brick-maker, for separating the earthy substance from the gravel and sand; and the long tom—a long inclined trough made of wood for separating the gold from the latter. These are the chief appliances in use for the treatment of the auriferous wash (the mills are now driven by steam-power in the majority of instances). It was in working the original water courses that led to the discovery of those gold-bearing quartz lodes and veins (called quartz reefs by the inexperienced), of unheard of richness, which made Bendigo as famous for her golden veins as she had been for her diluvium washings. The district is traversed by some hundreds of gold-bearing lodes, which have yielded some 4,000,000. These, if worked in a systematic manner, would afford employment for all the miners of Europe for ages yet to come. Sufficient working has been done to convince the practical miner that they are both rich and permanent. Miles of these lodes are being worked on, but to a very limited extent, the following statement will tend to show—the *modus operandi* of the Victorian miner. Claims are marked off along the course or line of lode; some are 20 ft. in length, some 30 and 40 ft. For years a claim of 100 ft. was considered excessive. On each of these claims a pit is sunk sometimes to a depth of 400 or 500 ft.; water and stuff drawn up sometimes with the hand windlass, in some instances the horse-whim and derrick; in latter years a few engines have been used by the more skilful and experienced for winding and pumping. To raise such large amounts of gold by such a method of working as this suffices to show the great value of the lodes. What would be the amount obtained if a system such as that known to the European miner were adopted on a large scale, both as regards mining and the metallurgical treatment of the auriferous substances? It can be readily answered—Prodigious! The main stay of Bendigo is the quartz workings, and in two or three parts the development is more in accordance with systematic mining. The Catherine United Company, the Messrs. Watson and Lotham, and the Messrs. Ballerstedt; the works of the two latter have been working since 1854, and their yield has amounted to many hundreds of thousands of pounds sterling.

It was on this field that the Colonial Gold Mining Company, and under the management of Messrs. John Taylor and Sons, of London, took up a large piece of auriferous ground situated west of the township, known as the White Hills; hills since famous for the immense wealth they have produced, and with limited means and unskilled labour. This company carted their most ponderous machinery from Melbourne at a cost of over 100% per ton, and which was never used. Machinery for amalgamating of a most valuable character was sold for a mere nothing, and afterwards re-cast into appliances of the most primitive character. A beautiful villa, &c., was built of wood; this would not suffice for the manager, but a wing, in the shape of a drawing-room, must be added, and the bricks for its construction were carted from Melbourne, when cartage was 100% a ton. It was the boast of those who purchased the ground on which the premises were built that they took out more gold than the company had spent. It is well known that the yield of gold from the ground the company abandoned has realised far more than the paid up capital, if five times paid, and the ground is still giving profitable employment to a large number of persons. More than this could be written, but enough has been said to show how the capital of English investors were spent, or I should say wasted. No wonder that we hear the oft-repeated remark that we have lost money in mining in Victoria. Those who invested can now form some idea as to how it was lost, and see it is not attributable to the want of payable ground. They owned, therefore, it must be to something else, the cause they need not be long at a loss to conceive. To these and other causes we owe the want of interest taken in gold mining in Australia by English mining capitalist. The failure of such a powerful and influential firm as that of the Messrs. Taylor could not have happened without its effect. Again, Bendigo was the field examined by the Royal Gold Commission, a commission appointed by the Government in 1856 to enquire into the extent and permanency of the auriferous wealth of the country. The Commissioners were—Professor McCoy (President), Mr. Swelny, Government Geologist; and Mr. Panton, Warden of the district. The result of their labours was summed up on five or six sheets of foolscap; the salient part was to the purport "That it would be injudicious to erect machinery of a permanent character to work for quartz." "For," said one of the Commissioners, when called in his capacity as Warden to settle a mining dispute, and finding the owners were working below 70 feet, "if they (the applicants) were foolish enough to throw away their means and time to work quartz below that depth this time was more valuable than to go and settle their dispute." This ground, the New Chum, on one of the main lodes, has since yielded many thousands of ounces of gold, and is now worked at a depth of several hundred feet.

The report of the Royal Commissioners was to be conclusive, therefore, to be heeded. What must have been the consequences to the colony had it been? Millions sterling have since been spent in the erection of permanent machinery, and gold lodes are being worked, nay, as I have shown, with the crudest means, and pay. Several of the papers I wrote and published against such an absurd theory was collated and sent to Sir R. Murchison by the Governor of the colony, Henry Barkley, a gentleman of high scientific attainments, and who took a great interest in this very important subject. As many opportunities had been afforded him in visiting claims of various depths, Professor McCoy was guided by what had been written by the eminent baronet, whose experience appears to have been obtained in the Ural Mountains. Great weight was attached to the opinion of Sir Roderick, as he had stated that gold would be found in Australia. Australia is estimated to be 3,000,000 miles in extent. But both Sir Roderick and Count Streleski (the latter had visited Australia) forgot to say in what part of the vast continent it would be found. Another, eminent in geology as well as divinity, said Australia was auriferous—the Rev. Mr. Clarke, of Sydney. If we believe some writers, all countries are more or less auriferous; but to discover the part to be of commercial value, not only to Australia, but to other countries, was not shown by all these great authorities, although they had the same chance as Mr. Edward Hammond Hargraves, a person who laid no claim to scientific attainments, but being possessed of considerable knowledge of some parts of Australia, went to the gold fields of California, saw the great resemblance between the gold-producing formation of that country and that in New South Wales, to which place he immediately returned, discovered the philosopher's stone, caused a *terra incognita* to become immediately rich, and benefited many thousands of his fellow-men; such to him is a far greater honour and reward than the letters F.R.S., or even a baronetcy. Whilst writing on this subject I take this opportunity of thanking Mr. Davidson for quoting some of my opinions relative to quartz lodes, in his work entitled "The Gold Deposits of Australia." It can now be seen what a great amount of wrong may be done to a country if the statements of the flippant theorist and the vague conjecturer are allowed to pass uncontradicted and unrefuted.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WHEAL VIRGIN TIN MINING COMPANY.—Notice is hereby given, that a PETITION for the WINDING-UP of the ABOVE-NAMED COMPANY by the Court was, on the 13th day of January instant, presented to the Vice-Warden of the Stannaries by Michael Henry Williams, Sir William Williams, and George Williams, all of the county of Cornwall, trading and carrying on business as general merchants at Ferran Wharf, and elsewhere, in the said county of Cornwall, under the style or name of the "Williams Ferran Company," creditors of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the Prince's Hall, Truro, on Wednesday, the 10th day of February next, at Twelve o'clock at noon.

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioners, or their solicitor, or agents, of his intention to do so, such notice to be forthwith forwarded to P. P. Smith, Esq., secretary of the Vice-Warden, Truro. Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same from the petitioners, or their solicitor, within twenty-four hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before the 6th day of February next, and notice thereof must at the same time be given to the petitioners, or their solicitor, or agents.

JOSEPH ROBERTS, Truro, Cornwall (Solicitor of the petitioners). Messrs. R. W. CHILDS AND BATTEN, Solicitors, 25, Coleman-street, London (Agents of the said solicitor). Dated Truro, January 16th, 1869.

VALUABLE MINE MACHINERY AND MATERIALS FOR SALE. MESSRS. HANCOCK AND SON WILL SELL, BY AUCTION, on Tuesday, the 2d day of February next, at

PENHALLOW MOOR MINE, Near EAST WHEAL ROSE, NEWLYN, in the County of CORNWALL, the WHOLE of the

VALUABLE MACHINERY AND MATERIALS thereon, comprising—An excellent 60 in. cylinder STEAM ENGINE, with steam case, 10 ft. and 9 ft. stroke, nearly new, and made on the latest improved principle. An unusually good SHEARS, 63 ft. high, nearly new; one other shears; two HORSE WHIMS, with shafts and shaft tackle, complete; two balance bobs; about 80 fms. of 2 in. and 1 1/2 in. round rods of best iron; 1 10 arm capstan; 9 9 ft. 15 in. pumps; 6 9 ft. 13 in. pumps; 1 12 ft. 12 in. working; 1 12 in. door clamp and seating; 1 10 ft. 12 in. sinking windbox; 30 fms. iron stave ladders; 12 flat-rod pulleys, with axles; 130 fms. of good wood ladders; blocks and shafts, complete; 2 double power winches; red pine and other wood rods; a large wood carpenter's shop; good wood sheds; wood elstern; carpenter's bench and chest; miners' chests; wheelbarrows; picks, hilt; a large quantity of whole and half timber, plank, American oak, other useful timber; and a quantity of other articles not enumerated; also, the usual routine of account house furniture.

The auctioneers beg to call the attention of mine agents and others to the above valuable lot of machinery and materials, the same being good, and in first-class condition.

Sale to commence at Twelve o'clock at noon. Further particulars may be known on application to W. WEST, Esq., St. Blazey; or to Capt. CHAMPION, on the mine. Dated Sidney-place, St. Austell, 16th January, 1869.

EAST PANT DU AND COLOMBY MINES, MOLD. SALE OF STEAM ENGINE AND BOILER, MINING MATERIALS, ETC.

MR. THOMAS DEAN has been favoured with instructions from the Official Liquidator to SELL, BY AUCTION, on Friday, the 5th of February next, at Twelve o'clock at noon, on the Colomandy portion of the Mine, about 2 1/2 miles from Mold, on the Ruthin Road,

THE WHOLE OF THE PLANT AND MACHINERY, Consisting of ONE 18 in. cylinder ROTARY ENGINE, with pumping gear attached; wrought iron crank, 6 in. square, fly wheel, 12 ft. diameter; 2 cog wheels, and shaft for drawing gear, if required; 7 segments of fly wheel, shaft bob, balance bob, pedestals, brasses, and bearings; tubular BOILER, about 7 tons, with appendages, steam and feed pipes, 5 in. steam gauge, damper and chain; shear legs and 2 sheaves; 8 arm oak capstan, span beam, legs, and stays; capstan rope, 40 fms. 7 in. plunger and 6 in. wind rods, 15 fms. 6 in. drawing lift buckets and iron buckets rods in the shaft, 1 horse whim, 2 good iron kibbles, poppet heads and pulleys, 1 3/4 in. chain (about 140 yards long), 280 yards of bridge rails and wagon at bottom of level, 13 bars new iron, 13 new bucket joints, chests, 7 cast steel drills, 25 yards new 3 in. tackle rope, 10 yards chain, 9 new picks and steel point shovels, bar of drilled steel, tub, scale stand, fir poles (4 ft. 6 in.), iron pulley, boards, bricks, breaking plates, cistern, and ayvil.

One hundred and thirty-five yards of 3/4 in. chain and whim at East Pant Du. The whole may be viewed any day prior to the sale, and further particulars obtained from Mr. GEORGE HASWELL, 89, Foregate-street, Chester; from the auctioneer, Mold; or from Messrs. LACE, BANNER, GILL, NEWTON, and BUSHBY, solicitors, Liverpool.

IMPORTANT MINING PROPERTY, WITH BUILDING AND MACHINERY, IN IRELAND.

THE CARYSFORT MINING COMPANY (LIMITED), IN LIQUIDATION.

MESSRS. EDWIN FOX AND BOUSFIELD WILL SELL, BY AUCTION, at the Mart, Tokenhouse-yard, Bank of England, on Wednesday, March 3, at One o'clock precisely,

THE CARYSFORT COPPER, SULPHUR, IRON, LEAD, AND SILVER-LEAD ORE MINES.

Situate in the county of WICKLOW, in IRELAND, near the towns of Arklow, Ovoca, and Newbridge, with the Dublin, Wicklow, and Wexford and Shillelagh Branch Railways passing through the lands; together with the agents' houses and workshops, powder house, stabling, &c., capital MACHINERY, including WATER WHEEL, 25 ft., 4 ft. breast pumps, drawing gear, ore crusher, dressing floors, sluice pit, small water wheel, steam engine and engine house, shaft timbering, and the entire PLANT necessary for continuing the working of the mines—all in good repair.

The set (which is held under lease, dated 6th February, 1858, from the Earl of Carysfort, for a term of 31 years from 29th September then last, at a royalty net of 1-16th) comprises about 16,500 acres, and extends from east to west about 3 1/2 miles, and is bounded on the north by the Arghrim River, on the south by the Arklow coast, on the east by the Arklow River, and on the west by the border line of the county of Wexford.

The following shafts have been sunk in these mines:—Ballintemple Lead Mine, 56 fathoms, and 6 levels; Ballinvalley Sulphur Mine, 28 fathoms; Ballinaclogh, 25 fathoms; Moneyteague, 25 fathoms; Ballyogue (two shafts), 8 and 24 fms.; Coolahullin, 11 fathoms; Arklow (two shafts), 10 and 12 fathoms, and numerous smaller trials.

From these the following ores have been raised:—Gold-bearing quartz, silver, lead, copper, sulphur, and iron, also, amber and china-clay, and slates, and upwards of 270 tons of lead ore; and a large quantity of the gold and other ores have been sold by the company. The buildings are in good repair, and the machinery in working order. The buyer can proceed at once with the working, which is at present carried on by the liquidators.

For further particulars, apply to Messrs. D. and F. FITZGERALD, solicitors for the liquidators, 20, St. Andrew-street, Dublin; or WILLIAM G. CRAIG, Esq., Liquidator, Trinity Chambers, Dublin; Messrs. ROBERTSON and FORD, 40, Chancery-lane, London; or to Messrs. EDWIN FOX and BOUSFIELD, 24, Gresham-street, Bank, E.C., corner of Coleman-street, London.

LEASEHOLD TIN PLATE AND IRON WORKS, CALLED LLANELLY FORGE.

MR. SYDNEY TUDOR EVANS is instructed to OFFER FOR SALE, BY PRIVATE CONTRACT, with the approbation of His Honor the Vice-Chancellor of the County of Glamorgan, the LEASEHOLD TIN PLATE AND IRON WORKS known by the name of

THE LLANELLY FORGE,

Situate at LLANELLY, near ABERGAVENNY, standing on 44 acres of land, or thereabouts, late the property of John Miles, deceased. The WORKS comprise STEAM ENGINES, rolling mills, blast and puddling furnaces, water wheels, large forge hammer, treacher mill, offices, &c., and are held under lease for the residue of term of 21 years from 24th June, 1863, at rents amounting to £290 a-year.

The works are ready for immediate occupation, and may be viewed on application to Mr. SYDNEY TUDOR EVANS, auctioneer; or Mr. THOMAS MORGAN LLEWELLYN, solicitor, Newport, Monmouthshire; or to Messrs. BARNARD, THOMAS, and Co., Bristol, of whom further particulars as to the terms of sale may be obtained. J. A. BUCKLEY, Chief Clerk. Dated this 21st day of January, 1869.

MINING PLANT FOR SALE.

TO BE SOLD, BY PRIVATE CONTRACT, the whole or portions of the valuable PLANT and MACHINERY in and upon the

PENPOMPREN & PENYBANK UNITED SILVER-LEAD MINES, TALLYBONT, near ABERYSTWYTH, CARDIGANSHIRE,

Comprising TWO WATER WHEELS, nearly new (with iron segments), 40 feet diameter by 4 feet breast, and 12 feet diameter by 4 1/2 feet breast respectively; upwards of 750 feet of LAUNDERS to ditto; CRUSHER, with 30 inch diameter rollers; double reversing improved WINDING MACHINE; 600 to 700 fathoms of WIRE ROPE, with pulleys and shives to support ditto; 11 fathoms 9 inch PUMPS, 15 fms. 6 inch ditto; 1 inch ditto; 90 to 100 fathoms of IRON PUMP RODS; electrical signalling apparatus, with 1500 yards of conducting wires; 400 to 500 yards of double-iron bridge tram RAILS; patent atmospheric American ORE STAMPS, with speed gearing for ditto; one ZENNER'S rotating BUDDLE, 18 feet diameter; two circular BUDDLES, with 9 ft. wheel to drive ditto; one OFFICE (of wood) 12 by 10 feet square; one ore bin, scales and weights, wooden sheds; six JIGGING HUTCHES; flat baffle, trunks, cranes, dolly tubs, catch pits, sieves, barrows, tools and utensils on dressing-floors, kibbles, tram wagons, balance and pendulum bobs, angle pulleys, crab winch, lifting screw, chains, tackle ropes, sundry lots of timber and ironwork, ladders and dividing boards in shafts, one horse and cart and two sets of harness, patent straw cutter and stable utensils, assayer's furnace and apparatus. Together with all the other sundry MATERIALS and APPLIANCES necessary to the working of an extensive LEAD MINE, the whole plant being in good order, of recent construction, and of the most modern and approved workmanship.

Apply to Mr. EDWARD GLEDHILL, manager, at the mines, who will furnish all requisite information and particulars.

PEN-Y-CERRIG SLATE QUARRY.

TO BE LET, ON LEASE, the PEN-Y-CERRIG SLATE QUARRY, situate about three-quarters of a mile south of HARLECH, one and a half miles from the shipping port and railway station of Pen-y-sarn, and within a few yards of the railway itself.

The QUARRY has been partly opened by the late owner and his devisees in trust, and already shows THREE VEINS OF SLATE (two blue and one green) wedged in between bands of trap rock, and having an average dip of 45°. The quarry has been inspected by competent persons, and the quality of the slate has been pronounced inferior to none in North Wales, the colour, size, and hardness being of a superior kind, whilst the inclination of the veins and the goodness of the roofing afford great facilities for getting both slates and slates. The quantity of slate is enormous, and the formation of the adjoining land affords every facility for opening fresh levels for tipping places, and for sites for workshops and cottages, whilst the levels can be connected with the railway, which runs close under the quarry.

The quarry can be viewed at any time, but none but persons possessing a capital adequate to properly working the same can be treated with.

For further particulars, apply to Messrs. G. and J. ALLEN and SON, 17, Carliisle-street, Soho-square, London, the solicitors to the trustees.

TO IRONMASTERS AND CAPITALISTS.

TO BE LET, at a moderate royalty, a VALUABLE SEAM of IRONSTONE, adjoining a railway and a navigable river. The mines are proved, and no shafts are required. The quality has been thoroughly tested, and the quantity is practically unlimited. Coke can be delivered at a reasonable price, and there is limestone suitable for smelting on the property. For particulars, apply to L. WYNN, Esq., 46, Lincoln's Inn-fields, London.

NORTH WALES—QUEEN'S FERRY, FLINT.

CLOSE TO THE RAILWAY.

TO BE SOLD OR LET, DESIRABLE FREEHOLD MANUFACTURING PREMISES, with ENGINE-POWER and LAND.—A plot of about one acre, with substantial factories, engine-house chimneys, stable, outbuildings, and sheds, suitable for any manufacturing purpose, ENGINE of most recent construction, and BOILER nearly new. For further particulars, apply to JOHN TEMPLE, 32, Redcross-street, Liverpool.

FOR SALE, cheap, a 16-horse power PORTABLE STEAM ENGINE, new, and with all recent improvements, guaranteed. FIRST-CLASS PORTABLES, 5 to 25-horse power, on advantageous terms. Prize Medals awarded—Hamburg, 1863; Paris, 1867, &c.

FOR SALE, EIGHT very superior SECONDHAND PORTABLE STEAM ENGINES 5 to 10-horse power, by eminent makers, in excellent condition. BARROWS and STEWART, ENGINEERS, BANBURY.

IN THE TOWER FOUNDRY IS THE TYNE DEPOT FOR MACHINERY of every description for WOOD and IRONSTONE, CORN-CRUSHING, and PUG MILLS. Also, AGRICULTURAL IMPLEMENTS.

PROPRIETOR.—G. HARLE, JUN.,

No. 49, MAPLE STREET, NEWCASTLE.

PURCHASERS of PORTABLE ENGINES and STEAM CRANES will do well to ask G. HARLE's price for the same.

SOUTH MERLLYN MINE COMPANY.

This mine is surrounded by numerous valuable properties. It is now being fully developed, and from results already met with will prove highly productive, and give early satisfaction to all concerned therein. Mr. R. J. BARTLETT will be happy to forward copies of reports on receipt of a stamped directed envelope.

All particulars can be obtained by addressing him at his offices, 30, Great St. Helen's, London, E.C.

\*A few shares for disposal at present low prices.

CWML DWFYFOR (NORTH WALES) COPPER AND SILVER-LEAD MINES COMPANY (LIMITED). INCORPORATED UNDER THE COMPANIES ACTS, 1862 AND 1867.

Capital £12,500, in 12,500 shares of £1 each, Fully paid-up on allotment.

BANKERS.

METROPOLITAN BANK (LIMITED), LONDON.

SECRETARY—Mr. G. CHAMBERS.

OFFICES.

ST. CLEMENT'S HOUSE, ST. CLEMENT'S LANE, LONDON, E.C.

Applications for shares in this remarkable mine, for prospectuses, and forms, and notices of the mine, its geological and mineral character, and extraordinary physical advantages, may be addressed to the secretary, at the offices of the company, where also specimens of the ores can be seen.

THE GREAT NORTHERN MANGANESE COMPANY (LIMITED).

NEAR BALA, MERIONETHSHIRE, NORTH WALES.

Capital £15,000, in 3000 shares of £5 each.

DIRECTORS.

RICHARD ROBERTS, Esq., Bala, Director of the Bala Banking Company. SIR EUSTACE FITZMAURICE PIERS, Bart., Manchester. H. SOUTHAM, Esq., Merchant, Manchester and Bala.

BANKERS.

THE BALA BANKING COMPANY (LIMITED), BALA.

ALFRED ORRELL WALMSLEY, Esq., Brown-street, Manchester.

AUDITOR.

G. NELSON, Esq., Accountant, Manchester.

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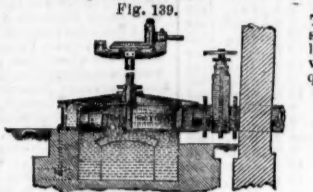
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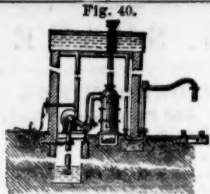
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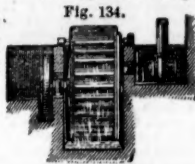
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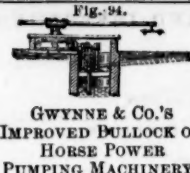
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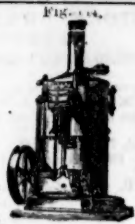
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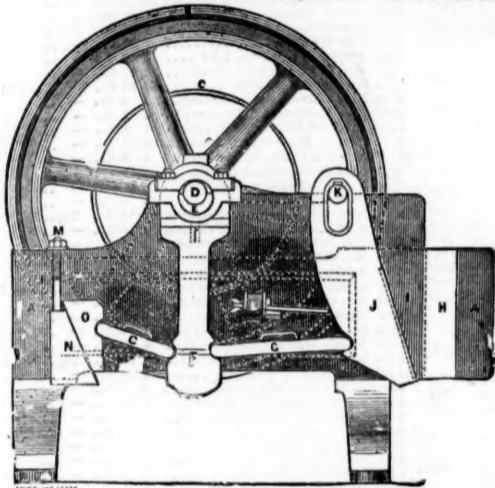
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# BLAKE'S PATENT STONE BREAKER,

OR ORE CRUSHING MACHINE,

FOR REDUCING TO SMALL FRAGMENTS ROCKS, ORES, AND MINERALS OF EVERY KIND.

It is rapidly making its way to all parts of the globe, being now in profitable use in California, Washoe, Lake Superior, Australia, Cuba, Chili, Brazil, and throughout the United States and England. Read extracts of testimonials:—



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*H. R. Marsden, Esq., Eton Emery Works, Manchester.*—We have used Blake's patent stone breaker made by you, for the last 12 months, crushing emery, &c., and it has given every satisfaction. Some time after starting the machine a piece of the movable jaw about 20 lbs. weight, chilled cast-iron, broke off, and was crushed in the jaws of the machine to the size fixed for crushing the emery. For the Parys Mining Company, H. R. Marsden, Esq. THOS. GOLDSWORTHY & SONS.

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*Welsh Gold Mining Company, Dolgelly.*—The stone breaker does its work admirably, crushing the hardest stones and quartz. WM. DANIEL.

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## CAUTION!

# BLAKE'S PATENT STONE BREAKER,

Blake v. ARCHER, NOVEMBER 12, 1867.

His Honour the Vice-Chancellor WOOD having found a VERDICT in FAVOUR of the PLAINTIFFS in the above Cause, establishing the VALIDITY of BLAKE'S PATENT, and made a DECREE for an INJUNCTION to RESTRAIN the DEFENDANTS, Messrs. THOMAS ARCHER and SON, of Dunston Engine-Works, near Gateshead-on-Tyne, from INFRINGING such PATENT, and ordering them to pay to the Plaintiffs the costs of the Suit.

ALL PERSONS are hereby CAUTIONED against MANUFACTURING, SELLING, or USING any STONE BREAKERS similar to BLAKE'S, which have not been manufactured by the Plaintiffs. Application will forthwith be made to the Court of Chancery for INJUNCTIONS AGAINST ALL PERSONS who may be found INFRINGING BLAKE'S PATENT after this notice.

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- For Double Cylinder Portable Steam Engine,—THE FIRST PRIZE OF £25.
- For Horizontal Cylinder Fixed Engine,—THE FIRST PRIZE OF £20.
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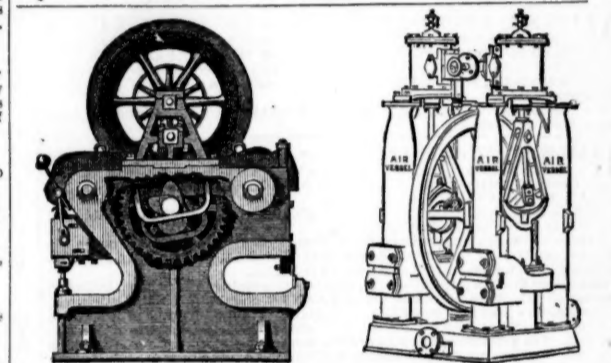
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Table with columns: Shares, Mines, Paid, Last Pr., Business, Total divs, Per share, Last paid. Lists various mining companies like Alderley Edge, Botallack, Brookwood, etc.

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